THE FIRST FIVE-YEAR DEVELOPMENT PLAN

(1969/70 - 1973/74)

Volume 1

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DEPARTMENT OF INFORMATION
REPUBLIC OF INDONESIA

TABLE OF CONTENTS

VOLUME 1

Presidential Decision No. 319/1968 1

Five-Year Development Plan:
Contents of Complete Series 5

Chapter I : AIM, TARGET AND POLICY 7

Chapter II : FINANCING THE PLAN 29

1. Sources of Financing and the Financing Program 31
2. The Fiscal Sector 46
   - 2.1 Fiscal Developments Before 1966 47
   - 2.2 The Current Fiscal Condition 47
   - 2.3 The Main Fiscal Policies of the Five-Year Development Plan 48
     - a. Revenue 49
     - b. Spending 51
     - c. The Financial Relationship Between the Central Government and the Regions 53
     - d. State Enterprises 53

3. The Financial Institutions Sector 54
  3.1 Past Financial Developments 55
  3.2 Programs for the Five-Year Plan 57
    a. Mobilizing Savings 57
    b. Channeling Savings into Investment 60
    c. Directing the Allocation of Investments 63

Chapter III : INTERNATIONAL BALANCE OF PAYMENTS 67
- Introduction 67

A. EXPORTS 68
  1. Present Situation and Problems 68
    1.1 Rubber 68
    1.2 Palm Oil 70
    1.3 Coffee 70
    1.4 Tobacco 71
  2. Export Policy 71
    2.1 The Rehabilitation of Production Capacity 72
    2.2 Diversification of the Composition of Exports 73
    2.3 Increased Processing 74
    2.4 Development of New Trade Directions 75
    2.5 The Problem of Infrastructure 76
    2.6 Improving the Trade Instrumentalities 78
    2.7 Cooperation with Other Export Producers 79
    2.8 Monetary and Fiscal Policy 79
  3. Export Projection 80

B. IMPORTS 83
  1. The Role of Imports 83
  2. Import Policy 84
  3. Import Projection 85
C. DEBT, CREDIT, LOANS AND FOREIGN PRIVATE INVESTMENT 87
D. THE PROJECTED BALANCE OF PAYMENTS 91

Chapter IV : REGIONAL AND RURAL DEVELOPMENT 95
A. REGIONAL DEVELOPMENT 95
  - Introduction 95
  1. Situation and Problems 96
  2. Policy and Measures 98
B. RURAL DEVELOPMENT 101
  - Introduction 101
  1. The Situation and Problems 103
    1.1 The Village Potential 103
      a. Category I 104
      b. Category II 105
    1.2 Village Community 106
    1.3 Capital in the Village 108
  2. Policy and Measures 111

Chapter V : GOVERNMENT ADMINISTRATION, PLAN IMPLEMENTATION AND ANNUAL OPERATIONAL PLAN 113
A. GOVERNMENT ADMINISTRATION 113
  - Introduction 113
  1. Conditions in Govt. Administration 114
  2. Policies and Measures in the Development of Government Administration 117
    2.1 Improving Organizational Structure 118

2.2 Improvement in Procedures 119
2.3 Improvement in Personnel 120
2.4 Financial Administration Improvement 122
2.5 Administration Improvement in Equipment and Supply 123
2.6 Improving Statistical Administration 123
2.7 Improvement of State Enterprise Administration 123
2.8 Improving Research and Development in the Study of State Administration 124
B. PLAN IMPLEMENTATION AND THE ANNUAL OPERATIONAL PLAN 126
- Introduction 126
1. The Five-Year Development Plan Is Translated into Annual Operational Plans 126
2. Annual Operational Plans as Effective Means for Implementing Plans 128
3. Implementing Program and Project Planning 129
4. Society's Participation in the Plan Implementation 130
5. Synchronization of Planning Implementation among the Implementing Units at the Central Government 131
6. Coordination of Planning Implementation Between the Central Government and Provincial Governments 132
7. Development Policies for the Successful Implementation of the Plan 132
8. Coordination Between Government and Private Sectors 133

9. Policies and Efforts for Mobilizing Financial Resources 133
10. Consistency Between Program of Project Budget Realization and Progress of Physical Implementation 134
11. Improvements of Financial Administration and Control 135
12. Improvement in Management and the Need for Capable Personnel 136
13. Progress Reports, Evaluation and Adjustments 137

LIST OF TABLES

I-1 : Physical Targets of the Five-Year Development Plan 26
II-1 : Investment Financing Program of the Five-Year Development Plan 32
II-2 : Sources of Financing of the State Development Budget 33
II-3 : Public Savings 34
II-4 : Sources of Financing Outside the State Development Budget 38
II-5 : The State Development Budget by Fields and Sectors 41
II-6 : Financing Outside the State Development Budget by Sectors 44
II-7 : The State Development Budget and Financing Outside the Development Budget by Sectors 45
II-8 : Real Volume of Outstanding Bank Credits 56
III-1 : Index of Export Value, 1950 - 1968 69
III-2 : Value and Volume of Certain Export Produce in 1967 as a Percentage of 1957 69
III-3 : Projection of Exports (f.o.b.) of Categories A, B and Oil (net) 81

III-4 : Foreign Exchange Proceeds from Oil Net 82
III-5 : Import Projection 86
III-6 : Foreign Debts as of 30 June 1968 88
III-7 : Repayment of Foreign Debts 89
III-8 : Projection of the Balance of Payments 92
III-9 : Projection of Services 93

LIST OF GRAPHS, CHARTS AND MAPS

- Public Savings 35
- Percentage Distribution of the State Development Budget According to Sectors 42

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MINISTER OF INFORMATION
REPUBLIC OF INDONESIA

Djakarta, February 15, 1969.-

PREFACE

This English edition of the Indonesian Five-Year Development Plan is issued by the Department of Information in cooperation with the National Development Planning Board (BAPPENAS).

The document consists of three volumes, of which the second volume is divided into three books.

This publication is to introduce the efforts of the New Order Government to raise the standard of living of the people.

Minister of Information,

(Boediardjo)

III-4 : Foreign Exchange Proceeds from [illegible] [illegible]
III-5 : Import Projection 86
III-6 : Foreign Debts as of 30 June 1966 88
III-7 : Repayment of Foreign Debts 89
III-8 : Projection of the Balance of [illegible]
[illegible]

LIST OF GRAPHS, CHARTS AND MAPS

- Public Savings
- Percentage [illegible] of the State Development Budget According to Sectors

PRESIDENTIAL DECISION No. 319
OF THE YEAR 1968
CONCERNING
THE FIVE-YEAR DEVELOPMENT PLAN

THE PRESIDENT OF THE REPUBLIC OF INDONESIA

Considering : 1. that it is the aim of struggle of the New Order to raise the standard of living of the People of Indonesia, which aim can only be achieved by carrying out development by stages and according to plan;

2. that the results which have been achieved under the program of political and economic stabilization, have at present become a basis for the implementation of development which is strong enough;

3. that based on MPRS Decree No. XLI/MPRS/1968, the task of composing and implementing the Five-Year Development constitutes one of the duties of the Development Cabinet;

4. that the Government has, at present, succeeded in composing the Five-Year Development Plan 1969-1973, which will become a basis and guide for the Government in carrying out above-mentioned MPRS Decree from year to year;
5. that based on above-mentioned considerations, it is deemed necessary to issue a Presidential Decision to authorise the Five-Year Development Plan 1969-1973;

Having in mind : 1. Article 4 (clause 1) of the 1945 Constitution;
2. MPRS Decree No. XLI/MPRS/1968;
3. Presidential Decision No. 183 of the year 1968;

Having heard : The considerations of the National Development Planning Board and deliberations during sessions of Cabinet;

HEREBY DECIDES

To enact : A DECISION OF THE PRESIDENT OF THE REPUBLIC OF INDONESIA CONCERNING THE FIVE-YEAR DEVELOPMENT PLAN 1969-1973:

Article 1

The Five-Year Development Plan as contained in Volume I, II and III of the annex to this Presidential Decision constitutes a basis and guide for the Government for the implementation of the Five-Year Development as has been char-

ged by MPRS.

Article 2

Implementation policies of the Five-Year Development Plan will be molded into Annual Plans which are reflected in State Budget and other policies.

Article 3

The molding into Annual Plans as meant in Article 2 of this Presidential Decision, is carried out while considering possibilities for changes and developments in the situation which necessitate adjustments of the Five-Year Development Plan.

Article 4

This Presidential Decision comes into force on the day of enactment.

Enacted in Djakarta,
On the Thirtieth Day of December 1968.

PRESIDENT
OF THE REPUBLIC OF INDONESIA
(sgd.)
SOEHARTO
General of the TNI

Article 2

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FIVE-YEAR DEVELOPMENT PLAN
1969/70 -- 1973/74

CONTENTS OF COMPLETE SERIES

VOLUME ONE
General

Chapter I : Aim, Target and Policy
Chapter II : Financing the Plan
Chapter III : International Balance of Payments
Chapter IV : Regional and Rural Development
Chapter V : Government Administration, Plan Implementation and Annual Operational Plan

VOLUME TWO-A
Plan According To Fields

Chapter VI : Agriculture and Irrigation

VOLUME TWO-B

Chapter VII : Industry, Mining and Electric Power
Chapter VIII: Communications and Tourism

VOLUME TWO-C

Chapter IX : Religion
Chapter X : Education and Manpower
Chapter XI : Health and Family Planning
Chapter XII : Housing and Social Welfare

Chapter XIII: Justice and Information
Chapter XIV : Transmigration and Cooperatives
Chapter XV : Defence and National Security
Chapter XVI : Research and Statistical Development

VOLUME THREE

Specification According To Regions

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CHAPTER I

AIM, TARGET AND POLICY

When the Indonesian people declared their independence in 1945, they cherished the hope that in the atmosphere of independence development efforts could be initiated which would truly raise their standard of living and bring progress.

Abundant natural resources, favourable climate and geography, together with a sufficient labor force, gave Indonesia a large potential for development.

In colonial times this potential was only developed along lines of interest to the colonizer through concentration on agriculture, especially plantations, with most produce being processed abroad. Thus the structure of the Indonesian economy became imbalanced because of a too great emphasis on that agriculture which was oriented towards export produce.

With the proclamation of independence it was hoped that the energy and talent of the Indonesian people could be used to transform the economy into a modern and progressive one. This hope has not been fulfilled during the decades since independence, with the result that disappointment, weariness, despair and frustration have gradually become more aggravated.

During the last decades the economy was the servant of politics. Rational economic principles were ignored. Domestic and foreign resources were squandered. The direct result was a decline in the economy accompanied by hyperinflation, which became more and more critical. Shortages were felt in many sectors, such as food, textiles, tools for production, spare parts, raw materials, etc. The irrigation system, plantations, mines, factories, road networks, electricity, drinking water, railways, airports, harbor and telecommunication facilities were virtually neglected.

Food production did not keep pace with population growth. Export proceeds decreased significantly, while imports were paid for by ever increasing loans from abroad.

Employment opportunities became fewer, as the economy declined. The only field of work which always expanded was Government service. The increasing number of civil servants pushed up routine expenses. However, revenues available in real value was not proportional to the number of people employed, so that the real income of civil servants declined.

Consequently, the rate of economic growth during the last decades was very low, especially when it is compared to the rate of population increase, so that in reality the income of the people per capita dwindled or was stagnant.

As a result, various social facilities were neglected. Those for education, health, recreation, religion, etc., were not able to keep pace with demand. The development of education was not in line with the development of the economy, with the result that graduates went jobless.

All this created an atmosphere of despair, apathy, loss of interest, a spirit of indifference. All walks of life were affected by lethargy, disappointment and frustration.

With the emergence of the New Order, dealing with mismanagement inherited from the Old Order became possible in all sectors, especially in the economic sector. The new policy is based on the ideal of creating an economic system which guarantees the preservation of a democratic economy and is directed towards creating a just and prosperous society based on the Pantja Sila.

This policy was embodied in the short-term program based on the MPRS Decision No. XXIII, which aimed at the control of inflation, the provision of sufficient food, the rehabilitation of the economic infrastructure, the stimulation of exports, and the provision of clothing. To reach those targets one of the most important policy decisions was to concentrate on decontrol and a reduction in bureaucracy. Thus the growth of the maximum creative capacity of the community would be possible without reducing Government guidance through various policies.

The main task of the new Government is to arrest the process of economic deterioration and to create a sound basis for economic growth. For this to be possible, the increasing inflation must first be controlled and efforts must be made to rehabilitate the economy. Only when the inflation rate has been controlled and stabilization has, to some degree, been achieved, can the recovery of proper economic activity and increased production be expected.

Since October 1966, for more than two years the policy of economic and political stabilization has been consistently pursued.

A study of the economic developments of the last two years clearly indicates slow but steady progress towards economic stability.

In 1966 the level of inflation, as reflected in the increase of the cost of living index, reached 650 per cent; in

1967 the increase was 120 per cent, and in 1968 85 per cent.

Although prices are still increasing somewhat, it is obvious that the trend of our economy is towards stabilization. It is also clear that export earnings show an increase over the previous year. Exports, including oil and overprice, increased while foreign currency reserves did not show a downward trend. The import pattern too shows an improvement in commodity composition. Now more than half of imports are basic materials and capital goods.

In the production sector progress is noted, too, compared to the previous year. This is mainly discernable in the production of rice, textiles, oil, tin, nickel, rubber, etc.

All this constitutes an indication that a foundation for the implementation of the development process is being created. Development must be carried out in planned stages and be based on a realistic assessment of the economy's capacity. Although we have abundant potential, our ability at present is still very limited. In a scarce economy we are not in a position to pursue all our needs at the same time. For that very reason, planned development is necessary, in order to meet our requirements step by step.

Therefore it is necessary to emphasize that development will not immediately provide the fulfillment of all of our needs. Besides it must also be noted that a development effort is not identical with development achievement. Everybody wants development, for its results and benefits, but the implementation of a development plan requires a willingness to reduce consumption so as to increase savings, and permit the accumulation of capitals, as well as the acceptance of the need to pay taxes. Development requires efforts, toil, and considerable sacrifice.

The results of development will not be immediately perceptible. The results of to-day's efforts can only be realized after some time. Fully conscious of all this, it is necessary that we do not expect too much in a very short time.

The important requirement is that Indonesian society know the direction towards which our people and country are moving, what can be expected in a short time, and what the prospects are, and what can not yet be expected immediately.

Having laid the basis which enables development to be carried out, the Five-Year Development Plan has been framed to raise the standard of living and at the same time lay a solid foundation for national development in the subsequent periods. The Plan takes into account our present capability and keeps constantly in mind the perspective of long-term objectives. Thus, the Development Plan has been formulated a realistic and pragmatic approach, on the aspirations of the people. The development targets we hope to achieve are very simple, namely : food, clothing, infrastructure improvements, housing, expansion of employment opportunities and spiritual welfare.

The agricultural sector receives the main emphasis in the implementation of development. It is the central arena in which all efforts are concentrated and results expected.

Selection of the agricultural sector is not accidental. It is the result of a development strategy designed to eliminate the backwardness of our economy through modernizing the agricultural sector.

The climate, soil and availability of labor make rapid progress in the agricultural sector possible. This is particularly true as new technology, new seeds and new techniques are introduced.

Increased production in the agricultural food sector will have a major influence on the growth of the Indonesian economy. The price of food in the country can be further stabilized with a positive effect on general price stability. Only in a stable economy can rapid growth be anticipated.

Increased food production also makes possible a decrease in rice imports. Hence a contribution is made toward conserving foreign exchange.

Increased agricultural production is not limited to food such as rice. No less important is improvement in the quality and volume of plantation output. The greater part of plantation produce is still exported. Improvement in quality with an increase in production of the estates will make an increase of export earnings possible.

Given the scarcity of foreign exchange available to the Indonesian economy, any addition to foreign exchange is important in making possible the import of more capital goods and other inputs necessary for development. Foreign exchange earnings of the estates can be used for the import of implements required for expanded agricultural production. This creates a reciprocal relationship which together pushes development forward.

Progress in the agriculture sector stimulates progress in other sectors. Increased agricultural output enlarges the market for the industrial sector, which produces basic materials needed by the agricultural sector. The demand for fertilizer, cement, insecticide, pesticide and other chemicals will increase as agricultural production expands. Thus the opportunity for expanded production of these materials is created.

Increased agricultural production also requires processing activities. Hullers, crumb rubber machines, lumber and paper are some of the industries in which growth is stimulated by increased agricultural production.

In addition, increased agricultural output will furnish yet another strong incentive for industrial development. The producers of agricultural products will earn more because of increased production. Usually they spend additional earnings for commodities not produced by agriculture, thus promoting the industrial sector which supplies the needs of consumers in the agriculture sector.

The stabilization of food prices through increased food production will also stabilize wages. Thus the industrial sector can operate with a cost-pattern which is not too unstable. These circumstances will stimulate industrial activity, so that expansion and cumulative growth in the industrial sector can be expected.

Above all, agriculture has been selected because the greater part of the Indonesian people lives in this sector, working either as farmer producers or as farm laborers. Agricultural development increases the earnings of the majority of the Indonesian people and thus increases national income.

It is clear that the choice of the agriculture sector for first priority is based on a broad strategy. The development of agricultural sector is expected to open up growth possibilities in other sectors so that an opportunity will be created to combat the backwardness of the Indonesian economy on many fronts.

On the basis of this strategy other sectors therefore will support and promote agriculture. The services and infrastructure of industry are essential to support and push the agriculture sector. This also constitutes the development criterion in other sectors. Thus, an objective norm has been created to determine the priorities for efforts in each sector.

Although the agriculture sector is the main preoccupation of the Plan's development strategy other constraints must still be considered. These are the factors which restrict the scope of efforts to achieve the agricultural targets. The most important constraint is the supply of foreign exchange.

Our supply of foreign exchange at this moment is precarious because of our obligations to repay the debts of the former regime. The repayment of these debts means that not all of the available foreign currency can be used to meet the current needs of our economy. A substantial amount must be put aside for settlement of debts.

This makes it imperative to exert all efforts to alleviate the burden through investments which yield foreign currency and attempts to use foreign currency efficiently. Thus the promotion of exports and import substitution are emphasized.

In addition to plantations, mining is also a foreign currency earning sector. The development strategy is intended to gradually improve the quality and volume of mining exports. For instance, nickel is at present exported in mud form, but gradually we must change to preliminary processing, so that by this processing the quality of exports can be improved, increasing export earnings.

Within the framework of economizing foreign exchange, the status of industries which replace imports is very important. Present import patterns indicate the composition of demand on our domestic markets.

Imports show that a domestic market already exists for the commodities. When domestic production supplies the commodities to this market, import substitution takes place. A policy combining import duties, tax incentives, credit and industrial development can encourage the establishment of foreign-exchange-saving industries.

In this connection, it is important to mention the textile industry. Large imports in previous years reflect the heavy demand and extensive market for textiles. The guarantee that a market is available makes it easier to develop domestic textile industries.

The building-up of the textile industry is not only important from the point of view of import replacement, but is also important to employment, stimulation of economic activities in the regions, the spreading of technological knowledge in the agrarian communities, etc. Taking these characteristics into account, industry assumes an important position and therefore it will be specifically spotlighted in the Five-Year Development Plan.

Investments in the agricultural, industrial and mining sectors are important but their success depends to a large degree on the condition of the economy's infrastructure.

The post-World War II population growth has created an everincreasing need for infrastructural services. Contrary to these increasing requirements for the utilization of the infrastructure, investment in the rehabilitation and expansion of these and related facilities had not been carried out.

As a result, deterioration in almost all infrastructure facilities is evident. A period of about ten years will be required to rehabilitate the roads necessary to serve the present and prospective volume and frequency of traffic. It is expected that in the Five-Year Plan period this inadequacy in the road system can be substantially reduced.

With the deterioration of the road structure, traffic shifted to railways. Railway tariffs have been maintained at low levels during the inflation period through Government subsidy. Thus the real tariff is relatively low which increases the demand for railway transportation. Despite this increase in demand, the railway enterprise itself could not maintain its facilities. Consequently the quality of railway services fell significantly. Most of the railway equipment at present is about 40 years old or older. The difficulties faced by the railway enterprise in meeting the increasing volume of transportation are therefore obvious.

While landcommunication suffers from its problems, it is no different with the sea communication sector. A large number of harbor facilities and equipment have been neglected and not maintained. For example, the dredging of harbors has been neglected for too long. Inadequate harbor facilities has meant inefficient time schedules for ships.

In the aviation sector inadequate airport facilities made the full utilization of airplanes impossible, resulting in inefficient air services.

A proper emphasis should be placed on improvement of telecommunication connections among the scattered islands. These connections, moreover, are at present confined to a few regions and their growth has not kept pace with the growth of needs.

At a glance it is evident that the condition of the infrastructure is lagging ever further behind ever-increasing needs. It is delapidated condition suggests that very large sums should be allocated for its rehabilitation. A selection must be made of the location and type of improvement needed as the deficiencies of the infrastructure are quite extensive while financial resources are limited.

In this regard, the scale of priorities as reflected in the Five-Year Development Plan gives guidance on the locations and type of infrastructure which need to be rehabilitated first.

Development of the infrastructure also increases he demand for raw materials, work shops and other equipment which could be produced domestically. These needs could be met by the subsequent growth of domestic industry.

It is clear that in general the strategy of development is to emphasize three strategic sectors, i.e. agriculture, industry and mining and infrastructure. Their growth is mutually interdependent. From the growth of the economy the magnitude and composition of manpower requirements and labor skills for production in the respective sectors could be inferred. Thus a "pattern of manpower requirements" will emerge.

It is recognized that data are still inadequate for the elaboration of the "manpower pattern", but it could be expected that the intensification and expansion of food production will require more manpower. In this connection it should be noted that the increase in food production will not require a proportional increase in manpower. It is expected, however, that the "multiplier effect" of development activities will increase employment opportunities.

Development of mining and forestry will require additional manpower, especially skilled labor. Rehabilitation of irrigation, roads, and other sectors of the infrastructure will require a significant amount of manpower as well as equipment.

In planning industrial growth the main emphasis should be placed on employment opportunities. This applies especially to light industries and handicrafts.

The expansion of employment opportunities through an increase in investment, especially of that carried out in the sparsely populated regions outside Java will simultaneously attract new workers. This would facilitate the transmigration of workers.

Thus a different approach to the transmigration problem than that adopted in the past is being tried. Formerly, transmigration programs were deliberate efforts to move people from a densely populated region to a sparse region.

Now, transmigration efforts fall within the framework of the Economic Development Plan. The availability of employment activities and opportunities are expected to create incentives for transmigration movement. Thus transmigration directly contributes to development efforts. Transmigration also becomes the synchronizing element between employment opportunities and the available labor force.

"Food-for-work" programs are no less important in increasing employment opportunities and reducing under-employment.

One aspect of the population problem is the "family planning" program. Family planning is not only important in reducing the rate of population growth to below the increase in national income so as to raise per capita income, but it is also beneficial for the health of the mother in particular and the family in general. Normally this program does not require a very large amount of financing. The important requirement is the determination of the community to seriously implement the program.

Family planning is a part of a broader health program. Increasing efficiency and a more extensive provision of health services among the people are desirable targets for the five-year period. Health is not only important for personal reasons but also for the entire community. Labor productivity will increase as health conditions are improved. The improvement of health conditions is not merely a humanitarian undertaking but it is also important in the interest of economic growth and sound social life.

The priorities of the Development Plan are also important to the planning of education. In the past the educational system and program had not been coordinated with the requirements of economic development, so that there began to be evidence of unemployment among graduates. As development progresses, however, the need for more technical and vocational workers will become clear.

To meet this need, the education program in the Development Plan will be directed towards a more extensive provision of technical and vocational skills.

The education concept in the plan refers to education in the widest sense which includes improving of skills and knowledge, religious education, etc.

Within the framework of cultivating the values and dignity of the Indonesian people on the basis of the Pantja Sila philosophy, conscientious attention is given to religion. In this connection, planning will involve the increase of facilities for carrying out religious practices according to beliefs of the respective religions such as holy books, and the rehabilitation and construction of buildings for worship.

Aside from the need to provide the society with a progressive economy, with sound physical and spiritual qualities - educational and religious - it is no less important to instill in the society a strong respect for the law, making Indonesia a law abiding nation. To this end it is planned to increase the facilities for law enforcement.

The various objectives of development planning are usually embodied in specific projects. As our wealth and natural resources are distributed throughout the regions, it is essential that development projects be located where appropriate. Taking into account the condition and economic potential characteristic of each region, the Development Plan contains projects that are distributed throughout many regions. Thus the development process will be carried out over the greater part of our country.

The development projects which are located in the regions, combined with and added to those which are peculiar to each region make up the regional development plan.

This regional development plan will, in its overall character and emphasis, be identical with the national development plan, but with the addition of special features peculiar to each province.

The above is the outline of the development strategy contained by the Five-Year Development Plan. The aim is to carry out development efforts which will make possible a process of modernization directed towards breaking through the wall of economic backwardness, with targets concentrated in agricultural development. With agriculture as a starting point development efforts in industry, mining, infrastructure, manpower, education, regional development and other sectors will be expanded.

The simultaneous and coordinated elements of this development strategy are expected to provide a sufficient inducement to get the Indonesian economy out of the stagnation of its economic backwardness. One Five-Year Development Plan will, of course, not suffice to attain this objective. Continuous efforts through the years are needed until the momentum for take-off is achieved.

In implementing policies to reach the target, it is the Government's intention to mobilize as much in the way of funds and resources as possible, not only within the Government sector itself, but also from the private sector, domestic as well as foreign.

The development efforts necessary for breaking through the vicious circles of economic backwardness can not be carried out with a small amount of capital. The interdependence of various sectors indicates the substantial amount of capital necessary. Therefore coordination and cooperation between the public and the private sector are most necessary.

Basically, Government efforts are concentrated on activities which do not attract, and are not profitable for, private enterprise, such as the infrastructure. The Government also has to play a role in sectors in which private enterprise is hesitant because of the experimental or pioneering nature of the undertaking. However, as much as possible the private sector must be stimulated to move in the desired direction.

Monetary, fiscal and banking policies will be helpful in directing this private investment. But this does not also imply that other sectors or branches of industry are not important. Private capital is free to choose the areas in which to operate within the provisions of various regulations. Through incentives and inducements it is intended to attract industries to fields where growth is desirable. To insure maximum results, it is very important that a climate, conducive to economic growth be created. The creation of this climate does not depend solely upon economic incentives. No less important is it that the people themselves understand and desire economic development.

To finance the Five-Year Development Plan efforts must be made to mobilize financial resources from government savings, medium-term and long-term bank credits, capital investment and re-investment by private national, foreign and state enterprises,and foreign assistance in the form of program aid, project aid and technical assistance.

It must be recognized that as long as our ability to provide resources domestically is limited, foreign funds will have to be utilized to the maximum whether in the form of credits or investment, so long as those funds do not involve political commitments and are used in a responsible economic manner. An efficient use is important, since the repayment of foreign debts must come from the proceeds of increased economic growth. This will assure that future generations will not have to bear too great a burden.

Even though foreign resources play an important role, our main attention must still be on the mobilization of domestic financial resources. In this regard, developments in the past two years when Government revenue from domestic resources steadily increased is encouraging. In the coming years the generation of public savings the excess of Government revenue from domestic sources over Government routine spending will be constantly intensified.

To increase public savings, efforts will be made to reduce nonessential and unproductive Government expenditures. Routine spending, however, will increase in the coming years for education, health, road maintenance and other services.

In addition to public savings, no less important are savings of enterprises for reinvestment, and savings carried out by society. To promote increased mobilization of corporate savings steps will be taken to permit revaluation of corporate assets. Promotion of bank deposits constitutes one of the efforts to induce society's savings.

Collection of these savings, public enterprise as well as society's, could be intensified if supported by a determination to achieve development. Discipline, hard work, and reduction of consumption desires are characteristics of an enthusiasm for development. Various urgent needs of classes or groups will need to be sacrificed and subordinated to the general interest of development.

To ensure the efficient utilization of development resources, projects need careful preparation. Therefore, it cannot be over-emphasized that the inclusion of a project in the Plan does not guarantee its implementation. A survey or feasibility study which will justify the project must still precede its implementation.

Considering the importance of surveys and feasibility studies for a development project, accurate planning in this area of research is also necessary.

Even though projects are technically sound, their success will very much depend upon society's participation. In this connection, most important is the role of information in stimulating public enthusiasm for the development process. The Indonesian people have been disappointed for too long by all kinds of development plans and slogans. Too often plans are started with much fanfare only to be completely forgotten afterwards.

As a result of these experiences there emerged feelings of suspicion, indifference, and doubt for each new effort. To make things worse, society has adopted a sense of self-doubt regarding its own ability to develop and change its fate. The smooth implementation of the Development Plan requires the elimination of this sense of doubt.

Development does not depend only on investment. Of equal or greater importance is the intention and desire of the people to carry out economic development. Furthermore, society's awareness of and courage to face all the requirements and consequences of the development process are also essential.

To implement the development task seriously, the efficiency of the Government apparatus - the Central Government as well as the regions - will be improved. Periodic surveys and evaluation will be carried out to compare physical progress with financial expenditure. Accurate and continuous control will make possible the smooth implementation of the Development Plan.

The Five-Year Development Plan is meant to give an indication of the direction of growth in accordance with the stipulated development priorities. Thus the Plan programs are stated in general terms, not in great detail. This is understandable and necessary as data are still too inadequate to permit precise estimates of the economy's growth in the coming five years. It would therefore be incorrect to determine an inflexible figure or activity for the following five years.

In this connection, the Five-Year Development Plan will be implemented in detail and in full in the annual state budget. It is in these annual plans that further details will be formulated on the actual projects to be implemented, with targets and financing clearly specified. As the draft of the state budget is discussed by the Indonesian Parliament each year, the contents of the Five-Year Development Plan becomes automatically the subject for scrutiny and approval by Parliament.

If the Five-Year Development Plan is succesfully implemented, several important targets in various sectors will be realized. Table I-1 shows that the target for rice production is an increase of 46.5 per cent, that of export products such as palm oil 59.8 per cent, crude oil 50.1 per cent, cement 175 per cent, and production of fertilizers 767 per cent.

It is obvious that these production increases will favorably affect the rate of economic growth. Many plans use the overall rate of economic growth as a target from which the requirements for investment are calculated within a macro-economic framework.

In this Development Plan the targets for certain sectors only are predetermined and their investment requirements were then adjusted to estimate available financial resources and later reformulated within these financial limits.

The method of partial planning was used mainly because of the lack of macro-economic data. In addition, hyperinflation which formerly has raged in the economy destroyed the comperative relationships among various goods and services.

It is considered unwise at present to base the Five-Year Development Plan on unreliable or unstable data.

Although no target for an overall rate of economic growth is stipulated in the Plan, it is estimated that the targets in the various sectors will yield a five percent rate of economic growth.

As the population growth rate is about 2½ per cent a year, an economic growth of five per cent will result in 2½ per cent growth per capita. If no serious difficulties occur in the coming five years it is not impossible that the rate of economic growth will be more than five per cent annually.

More important than such macro-economic estimates, however, is careful planning which can ensure the harmony and consistency between the various sector plans and the proper planning of projects and formulation of policies. All this should be carried out within a planning framework which ensures flexibility, permitting necessary adjustments to changed conditions.

Most important of course, is the implementation of the Development Plan itself. It is in this regard that the Five-Year Development Plan gives its special attention to the Government apparatus, the implementation of planning and the annual operational plans.

In the final analysis, the success or failure of the Five-Year Development Plan depends very much on the response, understanding, awareness and participation of the Indonesian people in facing the challenge of development in order to pave the way for posterity to create a just and prosperous society based on the Pantja Sila.

Table I-1

PHYSICAL TARGETS OF THE FIVE-YEAR DEVELOPMENT PLAN

Sector (1)	Unit (2)	1969/70 (3)	Target 1973/74 (4)	Increase in percentage (5)
Agriculture				
Rice	million tons	10.52	15.42	46.5
Oil palm				
- oil	thousand tons	172	275	59.8
- kernels	thousand tons	41	68	65.8
Sugar	thousand tons	677	907	33.9
Copra (State Est.)	thousand tons	1.1	1.5	36.5
Cacao (State Est.)	tons	815	1,625	99.3
Corn	million tons	3.37	4.23	25.5
Pulses	million tons	0.95	1.40	47.3
Vegetables & Fruits	million tons	8.30	11.20	34.9
Edible Roots	million tons	15.66	18.09	15.5
Fish	thousand tons	1,423	1,969	38.3
Wood	thousand cub.m.	2,900	7,900	172.4
Milk	million kgs	2.04	5.09	149.5
Meat	million kgs	64.34	107.90	67.7
Eggs	million kgs	4.69	15.12	222.3

(1)	(2)	(3)	(4)	(5)
Mining				
Crude oil	million barrels	293	440	50.1
T i n	metric tons	16.16	19.4	19.9
Bauxite	thousand tons	1,000	1,200	20
Industry				
Textile	million tons	450	900	100
Fertilizers				
- N	thousand tons	46.5	403.5	767
- P	thousand tons	18 (1971)	168	833
Cement	thousand tons	600	1,650	175
Newsprint	thousand tons	16	166.5	940.6
Electric power	thousand KVA	659	1,084	64.4
Communications				
Telecommunication				
- Number of telephones	thousands	177.1	257.5	45.4
- Post offices		774	784	1.3
- Post houses		1,418	1,708	20.5

(1)	(2)	(3)	(4)	(5)
Rehabilitation of Railroads	kilometres	---	715 (in 5 years)	---
Number of diesel locomotives		285	341	19.6
Rehabilitation of roads	kilometres	---	11,225 (in 5 years)	---
Upgrading of roads	kilometres	---	6,000 (in 5 years)	---
Health				
Community Health Centres		1,227	4,216	243.6
Clinics		6,800	8,000	17.6
Maternal/Child Health Clinics		5,600	7,500	33.9
Complete Family-Planning Clinics		300	1,200	300
Education				
SMP in comparison with secondary technical schools/vocational schools		100:80 (1967)	100:98	
SMA in comparison with technical high schools/vocational schools		100:84	100:112	

CHAPTER II

FINANCING THE PLAN

If Indonesia is to achieve significant growth during the Plan Period and build the capability for future growth, it is essential that the necessary financial resources be mobilized and utilized to carry out the Plan. This is a difficult task in any country, but here the difficulty is increased by the fact that in the past several years Indonesia experienced some of the most chaotic financial conditions in recent world experience.

Hyperinflation was combined with the near collapse of the government revenue collection system, serious disruption of the banking system, extensive smuggling and flight of capital from the country, and a buildup of foreign indebtedness that brought the country almost to bankruptcy. One of the principle tasks of the present Government has been to bring this chaos under control and restore the financial system to its normal functioning. Much progress has been made over the past two years but there is still a long way to go in developing fully effective measures for mobilizing financial resources and seeing that they are efficiently used to promote the country's development. The Indonesian

Government and the Indonesian people are determined to move ahead as rapidly as possible to carry out this task within the next five years.

At this stage it is very difficult to quantify the total investment and saving targets for the next five years. National income and production estimates are very imprecise and the savings and investment components are very weak. Rather than try to base plans on such uncertain foundations, the scope of financial planning in the Five-Year Development Plan will be limited to the more readily measured quantities. Still the past inflation of prices and stagnation of production have so distorted basic economic relationships that it is difficult to measure what has happened, much less to estimate the future patterns. Thus fiscal and financial planning in the Five-Year Development Plan will emphasize the direction of policies to be followed and various aims to be attained. All of these will be reviewed annually during the preparation of the state budget.

Because of the failures of the fiscal and financial systems in the past, and also because of the confusion and low level of progress in the economy, the amount of investment throughout the economy has been very limited for years. There has probably even been a decline in the real capital stock of the country. Thus it is essential over the next few years to bring about a rapid expansion in the rate of investment in order to move the economy from stagnation to recovery and then on to significant growth.

The main principle of our planning is the implementation of a development effort founded on our own ability. This means that domestic sources of financing must be mobilized to the maximum. Foreign resources are only meant to fill the necessary gap between requirements and domestic resources. But it has to be recognized that the deterioration in financial conditions inherited from the previous period has resulted in a very limited savings potential within the country. This objective condition has meant that in the initial stages part of the investments must be financed by foreign capital. In the meantime the Government intends to continue its efforts to increase domestic savings in accordance with already-established policies for increasing State revenue and inducing bank deposits. The Government also intends to maintain a proper balance between Government savings via taxation and the fiscal system on the one hand and increased voluntary savings through financial institutions on the other hand. This balance is necessary to attain a maximum potential growth of total domestic savings.

1. Sources of Financing and the Financing Program

The financial resources for the Five-Year Development Plan are estimated at Rp.1,420 billion for the five year plan period. Of this, financing through the state budget amounts to Rp.1,059 billion while financing outside the budget amounts to Rp.361 billion (see Table II-1). The total for 1969/70 is estimated to be Rp.161 billion, of which Rp.123 billion is financed through the state development budget. All of the estimates are stated in prices prevailing at the end of 1968.

The financing sources of the state development budget consist of public savings, the counter-value of program aid, and project aid and technical assistance (see Table II-2). Public savings are the surplus from the government's routine budget. Thus this amount depends on efforts to increase revenues and to minimize government routine expenditures. It is estimated that public savings will amount to Rp.24 billion in 1969/70. This amount is the difference between do-

Table II-1

INVESTMENT FINANCING PROGRAM OF THE FIVE-YEAR DEVELOPMENT PLAN, 1969/70-1973/74

(in billion of rupiah, end of 1968 prices)

	1969/70	1970/71	1971/72	1972/73	1973/74	1969/70-1973/74
1. State Development Budget	123	153	223	264	296	1,059
2. Others	38	54	72	89	108	361
Total	161	207	295	353	404	1,420

T a b l e II-2

SOURCES OF FINANCING OF THE STATE DEVELOPMENT BUDGET
1969/70 -- 1973/74
(in billions of rupiah, end of 1968 prices)

	1969/70	1970/71	1971/72	1972/73	1973/74	1969/70-1973/74
a. Public Savings 1)	24	33	43	55	71	226
b. Counter-value of program aid 2)	63	75	85	85	85	393
c. Project aid 3)	36	45	95	124	140	440
	---	---	---	---	---	-----
Total	123	153	223	264	296	1,059

1) Public Savings = Government Domestic Revenues - Government Routine Expenditures

2) Excluding the amount used for short-term credit

3) Including project aid channeled through banks and technical assistance

Table II-3

PUBLIC SAVINGS
1969/70 - 1973/74
(in billions of rupiah, end of 1968 prices)

	1969/70	1970/71	1971/72	1972/73	1973/74	1969/70-1973/74
1. Domestic revenues 1)	228	276	324	374	428	1,630
2. Routine expenditures 2)	204	243	281	319	357	1,404
3. Public savings	24	33	43	55	71	226
(as a percentage of domestic revenues)	(10.5)	(12.0)	(13.0)	(14.7)	(16.6)	(13.9)

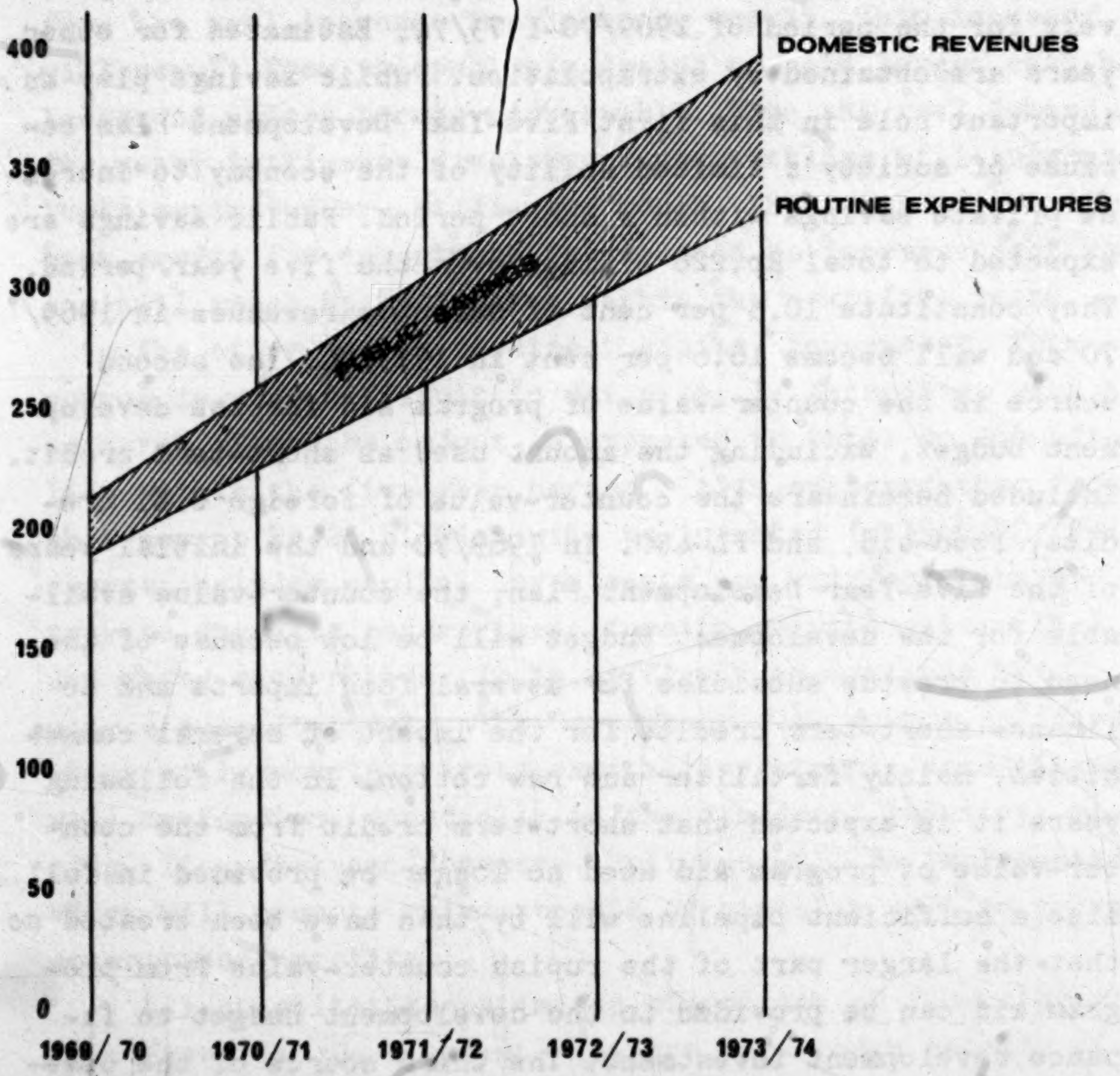
1) Total Increase 1969/70 - 1973/74 = 87.7 %

2) Total Increase 1969/70 - 1973/74 = 75 %

PUBLIC SAVINGS

1969/1970 - 1973/1974

IN BILLIONS OF RUPIAH, PRICES AT THE END OF 1968



mestic revenues of Rp.228 billion and routine expenditures of Rp 204 billion (see Table II-3). This is an improvement compared with 1968 when no public savings were realized. It is expected that public savings will increase annually and will reach Rp.71 billion in 1973/74. This projection is based on the targets for increased domestic revenues and routine expenditures of 87.7 per cent and 75 per cent respectively for the period of 1969/70-1973/74. Estimates for other years are obtained by extrapolation. Public savings play an important role in this first Five-Year Development Plan because of society's limited ability of the economy to increase private savings within a short period. Public savings are expected to total Rp.226 billion over the five year period. They constitute 10.5 per cent of domestic revenues in 1969/70 and will become 16.6 per cent in 1973/74. The second source is the counter-value of program aid for the development budget, excluding the amount used as short-term credit. Included herein are the counter-value of foreign B.E. credits, food-aid, and PL-480. In 1969/70 and the initial years of the Five-Year Development Plan, the counter-value available for the development budget will be low because of the need to provide subsidies for several food imports and to finance short-term credits for the import of several commodities, mainly fertilizer and raw cotton. In the following years it is expected that short-term credit from the counter-value of program aid need no longer be provided in full. Also a sufficient pipeline will by then have been created so that the larger part of the rupiah counter-value from program aid can be provided to the development budget to finance development investment. The third source of the development budget is project aid and technical assistance, the amount of which is expected to increase each year from Rp.36 billion in 1969/70 to Rp.140 billion in 1973/74.

Sources of financing outside the development budget consist of the increase in medium and long-term bank credi and direct investment (see Table II-4). The medium and lon term bank credits are expected to be financed partly from bank deposits, resulting from the current program of the g ernment to induce the holding of money in banks. The mediu and long-term bank credits also are expected to be finance from the real increase in the money supply. This increase will result from the public's desire to hold larger cash b lances as prices become more stable. Thus the real demand for money to finance development undertakings will increa These estimates are still very rough. The total amount of bank credit for investment is expected to increase each y and will reach Rp.95 billion within the next five years.

The other source is direct capital investment. This source is very difficult to estimate. In accordance with sectoral plans the amount is expected to total Rp.266 billion within the five-year period. It is expected that fro this amount Rp.25 billion will be invested in 1969/70. Th source includes capital investments and reinvestments by private domestic enterprises, foreign private enterprises and state enterprises. It is difficult to estimate this source quantitatively. The Government will pursue policie which will promote private capital investment, domestic a well as foreign, especially in the fields of industry, mining, fisheries and forestry. Policies will be implemente which will promote reinvestments of state as well as priv enterprises' profits.

All quantitative estimates of sources of financing f this Five-Year Development Plan are very rough because o the lack of statistical data. The estimates, however, wil be reviewed each subsequent year as more information bec available. The sources mentioned above do not yet reflect

Table II-4

SOURCES OF FINANCING
OUTSIDE THE STATE DEVELOPMENT BUDGET
1969/70 - 1973/74

(in billions of rupiah, end of 1968 prices)

	1969/70	1970/71	1971/72	1972/73	1973/74	1969/70-1973/74
a. Increase in medium and long-term bank credits	13	15	19	22	26	95
b. Direct capital investments 1)	25	39	53	67	82	226
Total	38	54	72	89	108	361

---

1) Includes capital investments and reinvestments by domestic private enterprises, foreign private enterprises and state enterprises.

sources available in society for investment. The sources mentioned above only describe sources which are directly under the control of the Government or those which could, to some degree, be influenced by the Government. There are self-financed undertakings carried out directly by society such as the voluntary construction of schools, the purchase of agriculture equipment and rehabilitation of irrigation channels initiated by the farmers themselves, and funds which are collected through the implementation of the Moslem "zakat", which are all sources available for economic development but are still very difficult to estimate quantitatively. The Government will implement policies which will promote the mobilization of these funds and their deployment in investments which are beneficial to the nation and society. Particularly for funds collected through the implementation of the Moslem "zakat", improvements will be made in the effectiveness of their mobilization and employment in important sectors which are justified by the Moslem religion. Furthermore, efforts will be made to find other sources for funds which are in accordance with religious teachings. For these reasons it is clear that the investments provided for in the Five-Year Development Plan do not yet reflect the entire actual investments that will be carried out in the society.

The sources mentioned above consist of domestic as well as foreign sources and government as well as private. From this standpoint, the Five-Year Development Plan has on the one hand a wider scope than the public sector only. On the other hand the Plan is not yet a comprehensive macroeconomic development plan.

The foreign resources are estimated in accordance with the projections made in the balance of payments, based on an exchange rate of Rp.350 = $1 with the exception of the aid program counter-value which involves subsidies and short-term credits.

The sources mentioned here comprise only sources of funds for investments in fixed capital. There are also sources of funds of a short-term nature to finance working capital. This short-term credit is expected to be financed from bank deposits and the real increase of the money supply and from the counter-value of the aid program. The amount of short-term credit in 1969/70 is expected to total between Rp.60 billion and Rp.85 billion. This short-term credit is a complementary source and it is not included as one of the sources of financing the Five-Year Development Plan. Yet annual credit programs will be prepared for the whole banking system to ensure that the utilization of these credits, short-term and medium, as well as long-term, is consistent with the priorities of the Five-Year Development Plan.

Distribution of the state development budget as between various fields and sectors for 1969/70 and 1969/70-1973/74 is given in Table II-5. In accordance with the priorities of the government program to improve the people's standard of living, economic fields will be emphasized, especially those which cover agriculture, irrigation, industry, mining, electric power, communication, tourism, and the rural sectors. Next in importance is the social field which includes health, family planning, education, cultural, religious, law and order, and other sectors. Third in importance is a general field which covers security, defense, and general government administration.

Sectorally, in 1969/70 the financial allocations of the state development budget are as follows: agriculture and irrigation Rp.35.1 billion, communication and tourism Rp.27.1 billion, industry and mining Rp.18.3 billion, electric power Rp.10.9 billion, education and culture Rp.10.5 billion, while each of the other sectors receives less than Rp.6 bil-

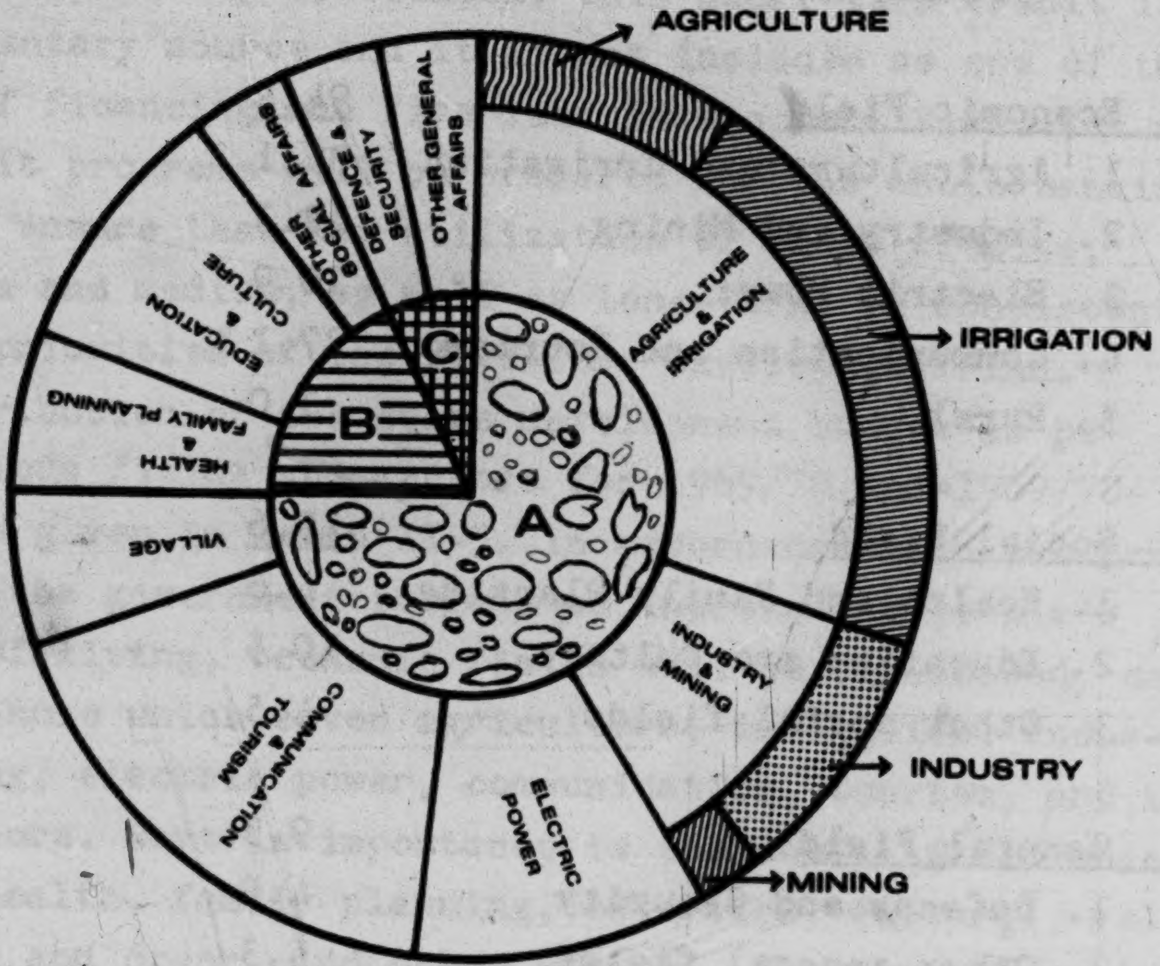
Table II-5

THE STATE DEVELOPMENT BUDGET BY FIELDS AND SECTORS
1969/70 and 1969/70 -- 1973/74
(in billions of rupiah, end of 1968 prices)

Field/Sector	1969/70	1969/70 - 1973/74
A. Economic Field	94.4	829
1. Agriculture and Irrigation	35.1	319
2. Industry and Mining	18.3	130
3. Electric Power	10.9	100
4. Communication and Tourism	27.1	230
5. Rural	3.0	50
B. Social Field	19.6	172
1. Health and Family Planning	4.6	42
2. Education and Culture	10.5	95
3. Other social fields	4.5	35
C. General Field	9.3	58
1. Defense and Security	4.0	28
2. Other general fields	5.3	30
Total	123.3	1.059

PERCENTAGE OF STATE DEVELOPMENT BUDGET ACCORDING TO FIELDS & SECTORS

1969/70 - 1973/74



A : ECONOMIC FIELD
B : SOCIAL FIELD
C : GENERAL FIELD

lion. In the five-year period the amount of resources available from the budget will increase by 8.5 times the amount of 1969/70. The allocation of finance according to field and sector is almost unchanged except for rural financing which will increase almost 17 times. The economic field will involve the following increases: agriculture/irrigation, electric power and rural sectors will each expand by more than 8.5 times the amounts of 1969/70 while industry/mining, communication/tourism will expand by less than 8.5 times. This is based on the expectation that financing from outside the state development budget for these sectors, especially industry and mining, will increase substantially. In the social field, health/family planning and education/culture will increase by more than 8.5 times. Other social sectors and sectors in the general field will each increase by less than 8 times the amount of 1969/70.

The following are sectors which will be financed from outside the state development budget in 1969/70: industry and mining is expected to obtain Rp. 28 billion, agriculture and irrigation Rp. 8 billion, communication and tourism Rp. 2 billion. Industry/mining in the five-year period will get Rp. 250 billion, agriculture/irrigation Rp. 76 billion, and communication/tourism Rp. 35 billion (Table II-6). Thus from the entire available resources in 1969/70 industry/mining will obtain Rp. 46.3 billion, agriculture/irrigation Rp. 43,1 billion and communication/tourism Rp. 29.1 billion. In the five-year period, however, the agriculture and irrigation sectors will again have top priority, followed by industry/mining and then communication/tourism (Table II-7).

Elaboration of the financing of sectors into allocations to sub-sectors as well as programs and projects is given in the individual sector chapters.

Table II-6

FINANCING OUTSIDE THE STATE DEVELOPMENT BUDGET BY SECTORS

1969/70 and 1969/70 -- 1973/74

(in billions of rupiah, end of 1968 prices)

Sector	1969/70	1969/70 - 1973/74
1. Agriculture and Irrigation	8	76
2. Industry and Mining	28	250
3. Communication and Tourism	2	35
Total	38	361

Table II-7

THE STATE DEVELOPMENT BUDGET AND FINANCING OUTSIDE THE DEVELOPMENT BUDGET BY SECTORS 1)

1969/70 and 1969/70 - 1973/74

(in billions of rupiah, end of 1968 prices)

Sectors	1969/70			1969/70 - 1973/74		
	Development Budget	Others	Total	Development Budget	Others	Total
1. Agriculture and Irrigation	35.1	8	43.1	319	76	395
2. Industry and Mining	18.3	28	46.3	130	250	380
3. Communication and Tourism	27.1	2	29.1	230	35	265
T o t a l	80.5	38	118.5	679	361	1,040

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1) Only for those sectors that obtain additional financing outside the development budget, i.e. Agriculture and Irrigation, Industry and Mining, Communication and Tourism.

2. The Fiscal Sector

Basic government policy towards the private sector at present is to give the minimum guidance and direction necessary to facilitate its sound and proper growth.
The Government will take direct action in fields which are vital and which influence the public welfare. The Government will enter into other fields only in so far as they have not or have not yet been undertaken adequately by the private sector. This means that investments are expected to come largely from the private sector and their financing should originate from private sources. Private investment at present, however, is very small because of a very low level of private savings.
Thus government investments at this stage still constitute an important and decisive factor for the first Five-Year Development Plan. Thus the government's role is not only to create an economic, political and judicial climate which would induce private savings and its channelling towards desired investment, but also to realize its own savings for the financing of its own investments.

The level of Government savings will depend on the Government's fiscal policy, i.e. upon efforts to increase its routine revenue from taxes as well as other sources, and upon efforts to reduce routine expenditures not resulting in investments.

Because of inflation, which did a great deal of damage to the economy in the past, it is extremely difficult at present to construct sufficiently accurate quantitative estimates of domestic savings, including public savings, for the next five years. Thus the government's financing plan in this first Five-Year Development Plan will put more emphasis on the direction of the fiscal policies to be followed.

Quantitative estimates will be made only to the extent feasible on the basis of available information, along with targets which are desirable and which could probably be attained with these policies. It should be noted that, during implementation, the data and targets can be improved and adjusted to conditions in accordance with the dynamic nature of the Five-Year Development Plan.

2.1 Fiscal Developments Before 1966

The fiscal policy of the period before 1966 was unlimited deficit financing. Sources of financing for government spending were mainly bank credits and foreign credits used for the financing of unproductive undertakings. As a result, Government deficits led to inflation in the period of 1960-1965.

In 1955-1960 prices increased at an average rate of 25 per cent a year but government revenue and spending had increased in their real value. On the other hand in 1960-1965 prices had increased at an average rate of 226 per cent a year and government revenue as well as spending had declined in real value. This was attributed to uncontrolable inflation causing a decline of per capita income, an inaccurate taxation base, the limited capacity of tax administration, and state enterprises which did not yield profits for the Government.

2.2 The Current Fiscal Condition

It was evident that the inherited fiscal policy was deplorable. The Government therefore undertook several economic policies which were directed at increasing revenue and eliminating the deficit as a source of inflation.

The state budget was balanced in 1967 and improvement in government revenue and spending was initiated. Prices rose by 120 per cent but revenue increased by 550 per cent and spending increased by 200 per cent compared with 1966. One of the remaining impediments in government spending is the large allocation for civil servants including pensioners despite the decline of their real income as a result of inflation.

Improvements have continued in the year 1968. In that year, not only was the state budget balanced, but all government routine spending was financed by domestic revenue. Various policies were carried out by the Government, such as improvements in the administration and collection of taxes, the application of the system of calculating one's own taxes (MPS) and the system of calculating the taxes of others (MPO), flexibility in the determination of income brackets, levy of sales tax on imported commodities, increase of tariffs and the aligning of the basic rate for evaluating imports with the B.E. rate, etc. All of the preceding was meant to increase government revenue and improve the taxation system itself but the scope was still very limited. Large reductions have been made in government spending, yet still much needs to be done to restore the state budget to its status as the instrument for management and control of government spending.

2.3 The Main Fiscal Policies of the Five-Year Development Plan

For a developing country the main instruments of government policy are the following: fiscal instruments which consist of taxation and other government revenue yielding measures, government spending and the balance between government revenue and government spending. With these instruments the Government can influence society's economic life.

To control inflation, fiscal policies now place more emphasis on the role of the budget as an instrument for monetary stability. The state budget should also play a role as an instrument for economic development, i.e. the Government must implement fiscal policies which would mobilize sufficient funds for government investments. The fiscal policies should spur private savings and channel them to various investments according to development priorities. For the above purpose, beginning in 1969/70, the Government will endeavour to achieve a surplus in the routine budget as a step forward from 1968.

At present it is still very difficult to determine in detail the fiscal measures which must be implemented by the Government in the coming five-year period. Thus what is presented here only constitutes the main points and general direction of the fiscal policy to be followed.

a. Revenue.

The main revenue policy is a taxation policy which should encourage economic development, such as: increasing government savings through raising the revenue, inducing private savings, stimulating investments and production, facilitating the simplification of administration.

As stated previously one of the aims of the taxation policy is to increase government revenue. This increase could occur automatically because of growth in the national income without any changes in the taxation system itself. In view of Indonesia's present low level of income and very low rate of growth it is difficult to depend on this method of increase. Alternatively the increase could also be brought about through the government policy of changing the tax system itself, improving the administration, changing the tax rates and changing the tax structure.

As a first step in the taxation field, the Government will carry out improvements in the administration of taxes coupled with efforts to improve and expand tax collection.

The second step, as a long-term program, will be to change the level of taxes and structure of taxation. Implementation of these changes should be preceded by an overall survey of the current tax system. As a general principle, however, it could be stated here that taxation needs to be reviewed to ensure that the tax burden would be borne by consumer luxury items, large fortunes and the high income brackets, and that the tax will promote improved production and exports. The general direction of the changes might be stated, for example, as follows:

First, various taxes such as the corporation tax and export tax should be reviewed with an eye to promoting investment and exports. Second, changes should be made toward an elastic taxation structure by improving the progressive nature of income tax and the progressive nature of various indirect taxes which have variable bases. Specifically, for ad valorem taxes, such as customs and import duties, elasticity could be improved if the base value is continually adjusted to free market conditions. Third, sales taxes on imports should be levied mainly on import commodities which compete with domestic production. Fourth, there should be an intensification of the tariff structure's rationalization through reclassification of import categories and categories of tariffs. Thus the tax burden will be borne more by finished goods/consumer goods and imports through the D.P. (Supplementary Foreign Exchange) than on unfinished goods, spare parts, capital goods and imports through B.E. credits. Fifth, there should be an effort to find new tax sources such as taxes on nonessential goods. These taxes would not only increase state revenue but they could also be used as an instrument for limiting nonessential consumption.

The pattern of revenue will not be greatly changed in the Five-Year Development Plan. Nevertheless efforts have already been made toward putting an emphasis on direct taxes as the main source of government revenue.

Concerning government revenues which originate from foreign credits (program aid) a policy is followed to ensure that the entire proceeds of the sales of these credits are utilized for economic development. The proceeds from the sale of the program aid resources include that of PL-480 aid.

b. Spending.

It is obvious that the increase of government receipts from tax revenues should not be consumed entirely by routine spending. Taxes should constitute a transfer of funds from nonessential consumption to the Government for the financing of investments. Hence, it would be in-appropriate if the taxes were used to finance nonessential government spending. This means that the Government should make an effort to reduce and control its routine spending.

At present, the main items of government routine spending are expenditures for personnel, commodities, subsidies and repayment of debts. The routine spending could be improved through reallocations, i.e., by reducing the portion devoted to certain items such as subsidies, repayment of foreign debts, wages in the form of natural goods, etc., and by increasing the portion devoted to certain other items such as personnel wages/pensions and spending for commodities.

Repayment of foreign debts could be reduced by postponing debts which originate from western as well as eastern countries. Wages in the form of real goods could be replaced gradually with money. Within the Government's capacity personnel wages need to be increased to raise the civil servant's standard of living which at this stage is still very low. Spending on commodities should be intensified in keeping with the increase of government activities.

The function of the Government's development budget is to ensure the implementation of the public sector planning. In addition, by its influence on the direction of the private sector's activities, the development budget would indirectly influence the implementation of planning of that sector as well. In this connection, the current budget system will be replaced by a system oriented toward the Government's working program. This budget system will reflect development priorities and facilitate the control of its implementation in the field of financing.

Another important problem in addition to the Government's mobilization of funds, is the channeling of the expected funds into desired investments. The channeling of funds could take the form of direct investments by the Government especially to finance the infrastructure that would eliminate bottlenecks in economic development, create the conditions which would induce private investments, and attain a balanced economic growth. Investments of this nature are actually spending as carried out by the government departments. In addition, the Government would make loans indirectly through banks to finance government and private investments. The uses would be, for example, the rehabilitation of plantations, the financing of local irrigation systems, small industrial projects and other activities. The interest rate and the conditions of the loan repayment would be adjusted to the requirements of the respective investment activities. Loans which are channeled through banks will be primarily for self-liquidating projects. The advantage of these loans is that in the future the Government would obtain rupiah returns which would be channeled to productive efforts.

c. The Financial Relationship Between the Central Government and the Regions.

As a main principle, and in accordance with regional autonomy, a region has the authority to mobilize funds from its authorized area. Those funds mainly originate from taxes for financing the region's own needs, such as revenues from the regional taxes, regional retribution, proceeds from regional enterprises, and other authorized regional undertakings. The regions have the obligation to mobilize these resources to the full extent for the sake of regional progress. At present there are still many resources not yet fully utilized even though the regional government has the authority.

In addition, the Central Government grants financial aid where the regions have not fully succeeded in mobilizing the funds in their respective areas of authority.

The financial resources for regional development are at present the IPEDA/IREDA that is, the central government tax of which the proceeds are surrendered to the district, and the ADO (Automatic Foreign Exchange Allocations). The IPEDA/IREDA taxes could still be increased while the ADO should be amended so that it is put to more profitable use.

Finally, to ensure that these funds are employed in accordance with the national development priorities, it is important that there be a harmonious coordination between the regional development budget and the central development budget. Thus an overall unity in the Government's development activities will be achieved.

d. State Enterprises.

The main policy on this matter is to eliminate or reduce the role of the state budget in financing state enterprises and to push forward their financing out of their own resources. Various small state enterprises which have always suffered losses could be made gradually into private enterprises.

State enterprises could be classified into public utilities and non-public utilities. In principle, state-owned public utilities must be able to cover their routine expenditures while financial grants could be given by the Government for capital depreciation and loans with very lenient conditions for investments. State-owned non-public utilities are given loans and not grants.

Another financing source for the state enterprises is their profits which are reinvested with the Government's approval. Even though state enterprises are still required to pay corporation taxes, the Government carries out a policy that would encourage the reinvestment of the enterprise's profits. Supervision could be effected by requiring that each state enterprise submit to the Government each year a suggestion concerning the reinvestment program. Utilization of the enterprise's profit for reinvestment should be carried out on the basis of an investment program which has been approved by the Government.

3. The Financial Institutions Sector

The basic objectives of this sector are:
(1) to promote the mobilization of savings, (2) to channel those savings into effective and productive use, (3) to direct the allocation of investments in accordance with the development priorities in such a way as to increase the productivity and well-being of the economy.

This sector comprises the whole range of financial institutions from the Central Bank to the village moneylender. Not all savings are channeled through the financial institutions -- some go directly into investment -- but the bulk of the savings do flow through the financial intermediaries and are affected by the operations of those intermediaries.

It is the intention of the Government to bring about a major improvement in the functioning of financial institutions during the coming five years. This will encompass not only expanding their activities but also seeing that they serve the whole range of savers' demands for financial assets and the borrowers' demands for different types of credit. There should be some specialization among the financial institutions in order to increase their proficiency in meeting the financial needs of various sectors; but this specialization should not be carried so far that it results in gaps in the provision of credit so that some urgent needs are not met. The main function of planning for the financial sector is to help define the areas and degree of specialization among financial institutions to see that there are no unfilled gaps, and to identify the policies and institutional changes which will improve the working of the financial system.

3.1 Past Financial Developments

During the years of increasing inflation, from 1961 through 1966, the financial system was shattered. Despite, or because of, the excessive expansion of bank lending, the real value of bank credit as measured in constant prices actually shrank so that by December 1966 it was only one-third of the December 1961 level.

Along with the decline in the real value of bank lending there was an increasing concentration of the lending activity in the Central Bank, B.N.I. Unit I, because it had the only significant source of loanable funds -- the new money which it was printing. Even the limited amount of lending by the other state banks was largely based on Central Bank credit.

Table II-8

REAL VOLUME OF OUTSTANDING BANK CREDITS (in Constant December 1965 Prices)

End of	Credits (billion Rp.)	Price Index	Index of Real Credits (1965=100)
1960	.02	.3	167
1961	.03	.4	188
1962	.05	1.0	125
1963	.09	2.4	94
1964	.22	4.7	117
1965	1.00	25	100
1966	6.34	267	59
1967			
March	7.88	364	54
June	12.57	325	84
September	18.26	445	103
December	30.47	567	134
1968			
March	34.77	893	97
June	39.38	913	108

Over the past two years the difficult process of rehabilitating the financial system has been started. The first measure was to try to impose some restraints on the expansion of bank lending in order to slow down the rise in prices and thus permit some increase in the real value of bank credit. Higher interest rates were also imposed in late 1966 to bring the cost of money in line with the rate of inflation. These measures, along with the improved fiscal conditions and the new inflow of foreign aid, began to have positive effects in 1967. The rate of inflation declined sharply and the real value of outstanding bank credits more than doubled. The favorable trends were reversed by the food shortages and rising food prices in late 1967 and early 1968. It was again necessary to curtail bank lending activity and the real value of bank credits declined because of the rise in prices.

Recently in addition to trying to control inflation by restraining the growth of money demand and assuring adequate supplies of food, the Government has launched a major savings mobilization program. This is intended to draw funds into the banking institutions from other forms of savings such as foreign exchange holdings and loans through the private or unorganized money markets. It is also expected to result in some shifting of savings from fixed assets such as land and gold into bank deposits. Finally with higher interest rates and greater security of deposits the Government may encourage greater savings out of current incomes. It is still too early to assess the effectiveness of these new measures but the initial response appears favorable.

3.2 Programs for the Five-Year Plan

a. Mobilizing Savings

A start has already been made on the implementation of the functions of this sector with the new policy concerning time deposits. This first step will be extended in various ways, among others by providing assurance that the savings are both profitable and secure.

It is the intention of the Government to maintain interest rates at a level which will attract substantial savings into the banking institutions. In this connection the Government will seek to balance the two considerations of sufficient incentives for savers and the costs for borrowers.

Additional programs to promote savings will also be introduced. One of these will be a system of installment deposits with lottery prizes to encourage regular weekly or monthly deposits out of current income. This system will include insurance of all deposits by the Central Bank and will be available not only to the state banks but also to the qualified private banks and regional development banks. In connection with this program the Government intends to improve the quality of the private banks and help them to play a more constructive role in the economy.

A key element in the savings mobilization effort will be the degree of success in stabilizing the domestic price level. This will have a great influence on the people's confidence in the economic policies of the Government and in their willingness to hold rupiah financial assets rather than foreign exchange or commodities. It will also be an important factor affecting the pattern of investment, especially in shifting investment from short-term inventory accumulation to capital purchases which have a longer-term payoff. Therefore the Government will continue to enforce its stabilization policies and seek to bring the inflation under complete control in 1969.

As it is more widely recognized that inflation will be kept in check, the real demand for money will grow along with the demand for other financial assets. At present the money supply is very small in relation to the total value of the country's output, but this is the inevitable result of inflation. People have not wanted to hold money because its real value was decreasing every day. Henceforth, as people realize that the risk of holding money is lessened, they will want to hold larger money balances and the ratio of money supply to gross national product can increase to a more normal ratio. Such an increase in money holdings will be an important form of savings which can be used to help finance development. But it is not possible to force these savings simply by printing more money because, if the money supply grows too fast, expectations of renewed inflation will cause people to trade their money holdings for goods thus bidding up prices and fulfilling the inflationary expectations.

Over the next several years the challenge for monetary policy will be to control the growth of the money supply so that it will be neither too rapid and precipitate inflation nor too slow to meet the growing real demand for money in the economy. If this challenge can be met, not only the stability of the economy, but also the potential for mobilizing savings through the financial institutions will be greatly enhanced.

Although it is somewhat premature to give much emphasis to the rehabilitation of other financial institutions such as life insurance and the primary and secondary security markets until inflation is stopped and the economy is functioning more normally, the Government will continue to explore the possibilities and encourage the development of such institutions.

b. Channeling Savings into Investment

The role of the financial sector in channeling savings into investment is not limited to the savings mobilized directly by the sector itself but also will include a part of the savings generated in the fiscal sector from its own revenues, and the sales proceeds of foreign assistance and also some direct foreign loans. Given these different forms of savings on different terms and in several different currencies the problem for the financial institutions is to translate them into the kinds of credits that are needed to carry out the investment and production activities of all parts of the economy.

At this time it is not possible to be very precise about either the pattern of supply or of demand for these savings throughout the Plan period. But each year an overall financial program will have to be prepared, along with the Government's budget and the foreign assistance program, which will estimate the supplies of, and demands for, finance and indicate how the various needs can be met.

There are a number of institutional barriers to the transformation of some forms of savings into the needed forms of credit. The most serious problems at the present time are the obstacles to medium- and long-term financing of investment activities. The deceleration of inflation makes it difficult to arrive at a longer-term loan agreement which is mutually acceptable to borrower and lender. This can be done through a maintenance-of-value feature in loan contracts which ties the payments of principal and interest to a price index or exchange rate. The same thing can be achieved by varying the interest rate over the term of the loan agreement to reflect the changing rate of inflation. Although the latter approach is somewhat less precise, it is administratively simpler and seems better suited for rupiah credits since there is no fully satisfactory price index to which loans might be tied. Credits entirely denominated in foreign exchange may appropriately be continued in that denomination on the assumption that the exchange rate will move with domestic price changes.

The other problem impeding the financing of investment expenditures is the absence of grace periods for the repayment of principal and interest during the time required to achieve a reasonable level of production with the new investment. Without such grace periods most borrowers will find it difficult to enter into loan agreements for the financing of new investment. The financial institutions, on the other hand, are faced with high monthly interest payments on deposits and therefore cannot forego interest earnings on their loans for long periods.

There are several solutions to this problem which may be applied to the loans based on different sources of funds. One means is to defer the repayments of principal and interest during the investment period and capitalize the deferred interest payments to add them to the principal of the loan at the time the repayments begin. Another method is for the Central Bank or other government agency which would be willing to forego interest earnings during the investment period to rediscount and hold the loan during that time and then turn it over to the original lending institution once the repayments begin. A third approach would be to have the suppliers of funds to the financial institutions make some provision in their loan arrangements to cover such grace periods. One or the other of these approaches to the grace period problem should be introduced for most forms of medium-term investment financing on self-liquidating projects to assure that there will not be a serious liquidity squeeze for the investor during the investment period.

Some of the specific provisions for transforming the various types of savings into medium-term financing through the financial institutions are as follows:

(i) for loans from the banks there should be flexible interest rates tied to the prevailing average rate on short-term credits. The problem of grace periods should be met either by Central Bank rediscounting of the loans or by capitalizing interest payments during the grace period. Finally, consideration should be given to a government-managed insurance program to cover at least some types of defaulting on medium-term loans based on deposits.

(ii) for loans from the Government to the banks, specific programs or sectors are determined to which these credits would be allocated such as the rehabilitation of estates, replanting estate crops, financing local irrigation systems or farm machinery pools, etc. The interest rate and repayment terms from the borrower to the bank and from the bank to the Government should be consistent with the needs of the investment activity, but in general the Government will not grant exceptionally low interest rates or long repayment periods because such loans are seldom needed to induce sound investments and also because if investments are subsidized they invite corruption and bureaucratic interference which only slows down the rate and quality of investment.

(iii) for foreign aid financing of imports, the state banks have been authorized to give direct credits (or guarantee deferred payments) to ultimate users of investment-type goods for up to three years. These credits are denominated in foreign exchange at the BE rate but require payment of principal and interest in rupiah at the exchange rate prevailing when the payments are made. Such credits are generally for smaller-scale investment activities up to

$ 300,000 for replacing old equipment, obtaining adequate stocks of spare parts and minor expansion of facilities. These activities do not warrant a thorough project appraisal by the bank, but are granted mainly on the basis of a judgment of the capability and credit-worthiness of the borrower. Grace periods and repayment terms should be adjusted to the individual need but in many cases the grace period may be unnecessary and the repayment period quite short.

(iv) for foreign aid loans to the financial institutions for relending in the form of project loans to domestic borrowers, both private and public, such loans should be mainly for the import of capital goods in amounts ranging from $ 200,000 to $ 3 million per project. Thus, they are larger than the guarantee credits, but smaller than the project aid. These loans are stated in foreign exchange but could be paid in rupiah at the prevailing exchange rate. Financial institutions could utilize the repayment of these loans for further lending until they are required to repay the original loan.

c. Directing the Allocation of Investments

Most of the investments in the Five-Year Development Plan will be implemented directly by the Government. For this type of investment, the Government determines the pattern of its allocation. The problem here is to ensure that the planning of this investment is such that it is actually implemented. In addition, there are investment activities of private and government owned enterprises which are not controlled directly by the Government. The Government has no intention of extending its control to these enterprises even though a direction will be outlined for their investments. State enterprises must also endeavor to generate funds from their own activities. In this regard, a review will be made by the Government of investments through internal financing. This review is necessary to ensure that the investments are consistent with the aims of the Five-Year Development Plan.

A more important source of financing for state as well as private enterprises is the funds which are channeled through the banking system. In this respect there are two goals to be sought. On the one hand the requirements for essential investments and the operational requirements of the Five-Year Development Plan should be fulfilled. On the other hand the responsibility of each bank to determine its own investment policy should be preserved and in fact should be enhanced. One way to attain the two rather conflicting aims is by preparing annual and quarterly credit programs for the whole banking system. The programs will estimate the potential sources of credits and their desired allocations: to short-term and long-term financing, among various sectors of the economy and between the private and public sectors. The credit program also functions as a guide for the allocation of the state budget's and the Central Bank's funds to state banks. The state banks will implement specialized functions which have been outlined by the Law on the Principals of Banking:

BANK INDONESIA : (to replace BNI Unit I), is again to function as a normal Central Bank and to assume its role as a bankers' bank and as the bank for the Government. Its main functions are to aid the Government in regulating and maintaining the value of the rupiah, to stimulate production and development and expand employment opportunities within

	the framework of increasing the society's standard of living.
BANK RAKJAT INDONESIA	(to replace BNI Unit II), carries out commercial banking activities emphasizing cooperatives, non-plantation agriculture and fisheries, handicraft activities, industry, smallholder enterprises not yet combined into cooperatives and to aid the state within the framework of implementing the agrarian policy and village community development.
BANK EKSPOR IMPOR INDONESIA	(to replace BNI Unit II Export sector) carries out commercial banking undertakings for the production, processing and marketing of export materials.
BANK NEGARA INDONESIA 1946	(to replace BNI Unit III) carries out commercial banking undertakings for the industrial sector.
BANK BUMI DAYA	(to replace BNI Unit IV) mainly directs its activities to the plantation and forestry sectors.
BANK DAGANG NEGARA	carries out commercial banking undertakings by emphasizing the mining sector.
BANK PEMBANGUNAN INDONESIA (BAPINDO)	mainly directs its activities to the industrial sector, spe-

cifically for the financing of medium and long-term investments to government as well as private industries.

The state banks which are operating in the agriculture and industrial sectors -- i.e. Bank Rakjat Indonesia, BNI 1946, Bank Bumi Daya and Bapindo -- in accordance with their specialized functions, will serve the financing of short-term as well as medium/long-term investments.

The Government and the Central Bank will allocate credits and some foreign aid to various banks. Thus the Government and the Central Bank could direct the allocation of state banks' credits to activities which are consistent with the entire requirements of the credit program and of the Five-Year Development Plan without interference in the decisions concerning individual loans of each bank.

Thus heavy responsibilities will be placed on the financial institutions to mobilize savings and channel them into large amounts of efficiently allocated investments. This will be one of the major tasks of the Five-Year Development Plan on which the success of the Plan may well depend.

CHAPTER III

INTERNATIONAL BALANCE OF PAYMENTS

Introduction

The foreign trade sector plays a central role in the development strategy underlying the Five-Year Development Plan. Growth and expansion of the basis of exports, improvements in the composition of imports and the flow of capital from foreign countries will be important elements of economic growth.

In the export sector, policy will be directed towards the attainment of substantial growth and diversification, both in the types of export goods and the direction of trade. In improving the industrial sector, priority will be given to investment in the field of export production and will be decided on the basis of productivity and foreign exchange earning potential.

For imports, a policy will be followed which will alter the composition in such a way as to push forward the development plan. The faster the rate of development, the more foreign exchange is required for the importation of capital goods, raw material and essential consumers' goods. Considering the limited foreign exchange available, it is imperative that it be utilized to the optimum.

Besides exports, foreign currency is also earned from foreign loans and grants and from foreign capital investments. At the same time that foreign capital flows into the country, an outward flow of capital and foreign currency occurs as payments are made on foreign debt of previous years and their interest. Recognizing the fact that our foreign debts have by now grown into a very large sum, the burden of interest and repayment is heavy. In the foreign exchange component for financing development, it is not the total but the net amount of foreign exchange resources from exports and foreign capital that is important.

A. EXPORTS

1. Present Situation and Problems

The evolution of export activities in the last 10 years was not very satisfactory. As described in Table III-1 from 1958 to the present time the export value in general, with or without petroleum did not reach the 1957 export level. In 1965, the trend was at its lowest point. Since 1966, however, the export value has been increasing.

The export trends reflect a decrease in certain export goods. On the other hand, the value and volume of several export goods have increased.

This situation is described in Table III - 2.

1.1 Rubber

The export value of rubber has been generally declining in the last 10 years, except in 1951, 1955, 1959 and 1966. The evidence has shown that the fluctuation in the value of rubber export is much greater than the changes in volume. This reflects the trends of foreign prices.

Table III - 1

INDEX OF EXPORT VALUE, 1950 - 1968

1950 = 100

Year	Total Amount	Without Petroleum
1950	100	100
1951	162	170
1957	119	100
1958	99	73
1962	85	71
1963	87	66
1964	91	70
1965	89	67
1966	90	19
1967 *)	95	81
1968 (as estimated)	106	86

*) Including Over-price.

Table III - 2

VALUE AND VOLUME OF CERTAIN EXPORT PRODUCE IN 1967 AS A PERCENTAGE OF 1957

	Value in 1967 % of 1957	Volume in 1967 % of 1957
Rubber	52	94
Smallholders	55	103
Estates	47	80
Copra	38	36
Tobacco	46	70
Coffee	214	262
Pepper	231	211

With regard to the export volume, the smallholders' rubber is more or less on the same percentage level as the estate rubber. The declining production of estate rubber is due to the lack of replanting at the proper time. Thus by 1957, the age distribution of rubber trees had deteriorated. The results of replanting initiated in 1963 will begin to be felt after 1970. The low productivity in the plantation sector is also caused by the problems of organization and administration of the estates taken over in 1957.

There has almost never been any systematic replanting of smallholders' rubber. In 1954, 1959, 1962 and 1965 the production of smallholders' rubber increased, as tapping was conducted in larger areas. The production and export of smallholders' rubber are greatly affected by world market prices. Because of the high elasticity of supply, fluctuations in quantity and price are also relatively great in the estate sector.

1.2 Palm Oil

Since 1950, the volume of palm oil export reached its highest point in 1966, i.e. 177,000 tons. In 1967, however, the volume was down by more than 25 per cent.

Production was low because there was no replanting and because of the inadequate use of fertilizer. It is expected that the replanting conducted in 1963 with more intensive use of fertilizer and the expansion of acreage will increase production by about 100,000 tons by 1975.

1.3 Coffee

The export volume of estate coffee has increased by 91 per cent, i.e. from 11,830 tons in 1957 to 22,564 tons in 1967. At the same time, the export of smallholders' coffee was also up by 183 per cent, i.e. from 40,425 tons to

114,257 tons.

It is hoped that as a result of the establishment of the International Coffee Agreement, the coffee price will be more stable, although the volume is decreasing. Therefore the substantial increase of coffee export will require efforts to expand the market into non-member countries.

1.4 Tobacco

From 1960 to 1967 tobacco export decreased by more than 50 per cent. This was entirely due to the decrease of smallholders' tobacco. In 1967, 41 per cent of the total volume of tobacco exports came from the estates. In 1960, the percentage was only 12 per cent.

Efforts are now being made to rehabilitate the tobacco estates, so that tobacco exports can be increased in the future.

2. Export Policy

The export strategy contains eight principle elements:

(a) rehabilitation of the productive capacity of traditional exports and, where justified by market conditions, an expansion of that capacity;
(b) diversification of the commodity composition of exports;
(c) greater value added within Indonesia through further processing of export commodities;
(d) the development of new trade directions wherever profitable opportunities to do so can be identified;
(e) strengthening of the infrastructure serving exports including a reorientation of the role of several ports to better serve new trade directions and design of new port facilities based upon recent development in port and shipping technologies;
(f) improvement in the economy's trade instrumentalities,

including improved trade financing facilities, entrepot and bonded warehousing, free trade areas, and improved marketing and development institutions for important products;

(g) an active search for cooperation with other major producers of our products with a view to achieving coordination of production and price policies serving the mutual interests of the primary producers; and

(h) general economic policies, including monetary, fiscal, and exchange rate policies, designed to restore appropriate relative prices within Indonesia and reasonable relationships between Indonesia and World prices.

2.1 The Rehabilitation of Production Capacity

It is well known that estate production capacity and facilities have deteriorated. Various steps are being worked out to improve this situation. In the estate sector, this program emphasizes obtaining the necessary inputs, particularly in the use of fertilizer, improvements in the technical and commercial administration and organization and in financial management, specifically the financial arrangements between the Government and the estates. Problems in marketing will be elaborated below. Major attention must also be given to the problem of the quality of planting stocks, and for those commodities in which future market expectations justify such investment, replanting programs using the best of the new varieties will be implemented.

For smallholders, the organizational and administrative problems of rehabilitation will be more difficult. The Government, however, attaches the highest priority to this problem for economic and social equity reasons. Rehabilitation of the smallholders' productive capacity is included in the study referred to above. It is expected that increased provision of fertilizer and assistance in replanting where appropriate will be major elements in this program. More effective and adequate provision of credit will also be critical.

All available indications are that a successful rehabilitation program will yield quick and substantial returns, increasing the foreign exchange earnings generated by traditional exports.

2.2 Diversification of the Composition of Exports

The Government will actively seek a major change in the structure of exports through diversification of export products. This can be done by introducing new export commodities or by increasing the export of certain export produce, so that these will increase the export volume. Diversification does not imply that currently important export products will be neglected or reduced. The new export products will increase foreign exchange earnings, add new jobs and produce new income sources for the Government. In addition, they will expand the marketing of raw materials and necessary services. A wider range of exports will also provide the economy with some degree of added protection against the adverse effects of instability or infavourable secular trends in the markets for particular commodities.

For several of the potential new exports this Plan period will be one of exploration and investment which will lay the basis for export growth during the next Plan period. This will be true, for example, of copper and nickel. For others, the gestation period prior to export is shorter and significant export volumes can be expected before the end of this Plan.

Production from the new petroleum concessions will increase the export yield if discoveries in commercial amounts are made during the next two years. The export projections given below are based on a reasonable, but not conservative, assumption as to discovery rates among the new concessions. Timber and modern commercial fisheries are also areas in which it can be expected that significant gains in exports can be achieved during this Plan period.

The creation of capacity in new lines of exports is an area in which the Government attaches the greatest importance to the attraction of foreign capital investment. The Government is extending to foreign investors attractive terms that nevertheless protect its vital balance of payments and revenue objectives.

2.3 Increased Processing

Historically, the degree of processing of export commodities carried out within Indonesia has on the whole been modest. Rubber has been processed but the locations of processing facilities are inappropriate and inaccessible to large areas of smallholder production. As a result, large amounts of rubber have been exported in unprocessed form for remilling elsewhere. Timber has gone out largely as logs or at most as sawn boards. Similar lack of processing characterises many other export commodities.

Added processing within Indonesia creates new employment opportunities, increases National Income, and raises foreign exchange earnings. Processing can also raise the quality of exports, increasing their acceptability on markets abroad and improving the prices received. This is particularly true of rubber, where an improved quality mix can be very helpful in offsetting the adverse effect on earnings of expected future price trends. The Government is already in the process of initiating a program to establish new processing units suitably located to serve smallholders. These units will consist of the newer crumb rubber plants that have the advantage of being small units that are economic and quick to set up and that the product is in a form preferred by the market.

For a number of other products the Government will either directly stimulate or encourage increased processing. The new major timber concessions are expected to lead progressively to an integrated wood-based processing and manufacturing complex. As discussed at some length in the chapter on Industries, there will be a major expansion of the pulp and paper industry, following increasing domestic demand for forest products and leading to the export of newsprint by the end of the Plan period. Similarly, our bauxite has until now been exported as crude ore. Discussions are now under way with a major international aluminium company looking to the establishment of an integrated mining and smelter operation tied in with the construction of a dam and an electric power project with a large capacity.

Arrangements have also been completed with an international firm for the rehabilitation and expansion of the tin mining and processing industry.

2.4 Development of New Trade Directions

Traditionally the bulk of our exports flowed to Western Europe with a smaller volume going to the United States. More recently there has been a substantial increase in the importance of Japan as a trading partner. Trade with the Pacific Basin and Australia has played a relatively minor role considering Indonesia's location. The Government's objective is to actively seek out new, profitable opportunities to develop trading relationships with these and other areas in an effort to strengthen the trading position. The development of an increasing volume of commercial trade with Eastern Europe and the Soviet Union would also be welcomed. Again, as in the case of export commodity diversification, it is not the intention that new directions of trade will be at the expense of the traditional trading pattern, but that they will be additions to it. These measures are not carried out through trade agreements or bartering. The objective will be approached through an active search for opportunities arising from our comparative advantages. The success of these measures will depend on the intensification of domestic marketing methods and the ability to adjust to the marketing procedures abroad.

2.5 The Problem of Infrastructure

The infrastructure serving exports such as storage, transport, and port facilities have been woefully neglected. The decline in the efficiency of trade facilities has not only caused an increase in the f.o.b. prices of Indonesian export commodities, but has in some cases even set limits on the physical volume that can be moved below what could be produced and sold.

To remove the complex of bottlenecks and inefficiencies in the export sector the Government will initiate an investment program to meet the following important needs: (a) improved trade facilities at collection and assembling points; (b) improved road and rail connections to ports including the necessary truck fleet and rolling stock; (c) improved coastal shipping critically necessary for the collection of a number of export products; and (d) improved port facilities. Major studies to determine the final shape of the road and transport facilities that will best serve our needs have already been initiated with major technical assistance from the IBRD. In the meantime the most urgent first steps are already obvious. Technical assistance for the rejuvenation of inter-island and coastal shipping has also already been arranged.

Both shipping and ports have undergone rapid technological advance in recent years. Ships have increased dramatically in size and the consequent trend towards bulk-shipping has resulted in substantial economies of scale. Containerization and improvements in handling equipment have led to substantial reductions in operating costs. As improvements are made in Indonesia's ports these changes in technology will be borne in mind. New facilities will be designed to take maximum advantage of these new cost-reducing opportunities.

The trend toward larger ships also suggests that the Government must be prepared for some shift in the relative role of the ports. The Straits of Malacca are not appropriate as a sea lane for the larger ships now operating, and the ships are still getting bigger. This suggests that ports on the West Coast of Sumatra and the South Coast of Java could well play a larger role in the future than in the past. In addition, they are appropriate to the evolving pattern of trade directions anticipated. If trade with Japan and Australia increases relatively, then the increasing sea transportation will utilize ports along the West Coast of Sumatra and the South Coast of Java. As a result of these considerations, the development of the ports of Padang and Tjilatjap into ports capabable of handling the new ships will receive special attention. It is not expected that the present larger ports will suffer an absolute decline in importance.

It is not the intention of the Government to carry out the full rehabilitation of the export infrastructure within the public sector. This would exceed the resources available to the Government, both financial and managerial. More than this, some key elements are more effectively carried out in the private sector including some aspects of storage, road transport, and some port activities.

2.6 Improving the Trade Instrumentalities

The final layer of neglect that has burdened Indonesia's export capacity is the decay into which the whole range of institutional and operating arrangements through which export trade is affected have been allowed to fall. This includes the financing and carrying out of internal collection and assembling, quality control and quality grading of products, the maintenance of marketing contacts and marketing intelligence with respect to important buying centers throughout the world, etc.

To a greater extent than is the case with infrastructure, responsibility and initiative for improvements in this area must come from the private sector. The Government can and will make important contributions here in three ways:

(a) to the extent that present Government tax, customs, banking, and foreign exchange procedures inhibit the efficient transaction of international trade, they will constantly be under review to identify changes and simplifications that will contribute to the stimulation of efficiency in trade without sacrificing other important objectives in those areas.

(b) the Government will take the initiative in establishing entrepot and bonded warehousing and free trade areas. It is expected that such facilities will reduce the credit necessary to finance international trade and if properly managed will substantially restore the confidence of buyers abroad in the quality and ready availability of Indonesian export products. It is also hoped that the free trade areas will be an added encouragement to the establishment of export-oriented manufacturing and processing facilities.

(c) for several important products for which past marketing arrangements have proved unsatisfactory, with the result that small producers have not been encouraged to increase their output and efficiency, the Government will take the initiative in organizing improved marketing arrangements.

2.7 Cooperation with Other Export Producers

Indonesia fully supports and participates in the broad efforts to seek solutions to the export problems of primary producers and the less developed countries, such as those carried out within the framework of UNCTAD. Global solutions to these problems, however, will be difficult to find and undoubtedly will involve lengthy periods of negotiation and experimentation. In the meantime, there are opportunities for cooperation especially in those cases where only two or three countries produce most of the commodity. Such cooperation could be fruitful in the areas of production policy, buffer stock policy, marketing strategies, dealings with the shipping conferences, and the exchange of technical information. All such opportunities will be actively pursued by the Government.

2.8 Monetary and Fiscal Policy

The underlying principles of monetary and fiscal policy that will be followed during the Plan period have been spelled out in detail in the preceding chapter. The effects sought in pursuing these policies will be felt throughout all aspects of the economy. Here we are concerned with their impact upon exports. The stabilization of the economy will benefit the export sector in a variety of ways.

The rapid inflation of the recent past inhibited exports because domestic costs of production rose more rapidly than the exchange rate, putting severe pressure on export profit rates. Inability to predict by how much prices might rise, even over the course of a few months, made it difficult for exporters to make supply or price commitments into the future. Moreover, the inflation and ensuing misallocation of resources distorted the relative prices of commodities within Indonesia as compared with the relative prices of the same commodities on World markets, further complicating the export of several commodities. Stabilization and the resumption of growth will reduce the pressure on the exchange rate, diminishing incentives for capital flight and smuggling.

Effective monetary and fiscal policy will directly enhance the economy's export capability by the selective channeling of credit and investment toward those activities which are necessary to increased production. Fiscal policies will take into account the differential incidence and incentive effects of taxes so as to encourage production and exports. Taxes on exports have already been reduced. The reduction of the tax burden on exports is a general objective forward which Indonesia will move.

3. Export Projection

Table III-3 shows that in the Five-Year Development Plan exports can be increased from $672 million in 1969/70 to $924 million in 1973/4, an increase of 37.5 per cent in five years.

This increase is mainly the result of the increase of the B category exports, i.e. from $148 million in 1969/70 to $297 million in 1973/74. Within the same period the net foreign exchange earnings from oil goes from $77 million to $124 million. Table III-4 shows the projected foreign exchange earnings of oil.

Table III - 3

PROJECTION OF EXPORTS (FOB)
OF CATEGORIES A, B AND OIL (NET)
(1969/70 -- 1973/74)
(in millions of US $, including overprice)

Exports	1969/70	1970/71	1971/72	1972/73	1973/74
Category A	447	460	474	488	503
Category B	148	166	192	234	297
Total of Categories A and B	595	626	666	724	800
Oil (net) *)	77	149	118	103	124
Total	672	775	784	827	924

*) Net foreign exchange earnings from oil are the gross value of oil exports less the cost of production and investment returns, cost of domestic marketing, and repayment of oil debts. (see Table III-4)

Table III - 4

FOREIGN EXCHANGE PROCEEDS FROM OIL (NET)
1969/70 -- 1973/74
(in millions of US$)

	1969/70	1970/71	1971/72	1972/73	1973/74
1. Exports (gross)	358	485	458	475	587
2. Cost of Production	-101	-109	-107	-143	-213
3. Investment Returns	-102	-150	-154	-159	-177
4. Domestic Marketing Costs	- 55	- 57	- 61	- 64	- 67
5. Repayment of Debts	- 23	- 20	- 8	- 6	- 6
Total	77	149	118	103	124

Exports of the A category had only increased by an average of three per cent annually while exports of the B category had increased by an average of 16.5 per cent annually.

B category exports show a rising rate of increase. It is the growth of this export category which will accelerate the overall increase of exports, The sectors from which an increase of foreign exchange proceeds could be anticipated are forestry (wood), fisheries, small-scale industrial products and handicrafts.

With continued improvement in the climate of international trade, especially with respect to price and foreign exchange policies, it is hoped that the volume of smuggling - which until now has been chiefly in rubber and copra - will decrease over the five-year period.

B. IMPORTS

1. The Role of Imports

The Government has four objectives in relation to the level and composition of imports:

(a) to insure adequate supplies and stabilize the prices of essential foodstuffs and textiles;

(b) to secure the maximum use of the existing production capacity through:

   (i) spare parts and capital equipment to increase the use of the available capacity;

   (ii) supplementary materials and raw materials to bring actual capacity used up to designed or rated levels;

(c) to assure the flow of capital goods, raw materials and supplementary materials which are necessary in the Development Plan; and

(d) to encourage, where possible, production based on domestic raw materials.

Regarding the adjustment of import composition to the targets of the Five-Year Development Plan, the import policy is closely related to the protection of domestic industrial growth. The growth of finished and semi-finished goods industries plays an important role in the Plan. Part of the additional domestic capacity and production will be based on import substitution. Efforts will be made to ensure that this new capacity will be created in those industrial sectors in which Indonesia enjoys a comparative advantage, both on the domestic market and on the international market.

In this way may be avoided policies exclusively directed toward import substitution without considering the possibility that production sectors might emerge behind the protective curtain with excessive production costs.

2. Import Policy

To achieve our import objectives major reliance will be placed on indirect means operating through price effects, including different rates of foreign exchange. To minimize trade distortion, efforts will be made to simplify import procedures and to avoid excessive changes in trade regulations. Nevertheless, the main consideration will be that the level and composition of imports are in line with the objectives of the plan.

In addition, it must be admitted that desirable patterns of trade and foreign exchange (market) cannot be completely implemented before eliminating the distortions occurring in the economic policy of the past. There is small hope of attaining the targets in international trade merely through indirect measures based on liberal policies, as long as domestic prices of certain commodities do not conform with the relative international prices.

The Government will maintain a pragmatic supervision of import and foreign exchange rate policies. In this way, the direction and composition of imports will always be adjusted to the development program.

3. Import Projection

The pattern of projected imports (excluding oil) is described in Table III-5.

The import of foodstuffs (rice, wheat flour, etc.) will decrease from $176 million in 1969/1970 to $67 million in 1973/74. It is hoped that the import of rice, in particular, will no longer be necessary at the end of the Five-Year Development Plan.

The import of raw materials and supplementary goods will more than double, from $335 million in 1969/1970 to $680 million in 1973/1974. The import of raw cotton will increase from $26 million to $52 million. Raw materials for paper production will increase by almost eighteen times, i.e. from $1 million to $19 million. Both increases are due to the planned increase in paper and textile production. Imports of raw materials in 1970/1971 will increase 30.4 per cent over those for 1969/70, but the percentage of increase will decline in subsequent years.

The import of capital goods will increase from $275 million to $614 million, or an increase of 123 per cent. Also the import of capital goods will greatly increase in 1970/71, i.e. 31.6 per cent compared to 1969/70. This percentage of increase will diminish until 1972/73, but not as quickly as that for raw materials/supplementary goods.

From the projection of imports for the next five years changes in the composition of imports will be apparent. In 1969/70 the import of foodstuffs will constitute 20 per cent of total imports, raw materials and supplementary goods 38 per cent, and capital goods 31 per cent. In 1973/74, these

Table III - 5

IMPORT PROJECTION *), 1969/70 - 1973/74
(f.o.b. in millions of US $)

	1969/70	1970/71	1971/72	1972/73	1973/74
A. Food Produce	**176**	**157**	**131**	**96**	**67**
1. Rice	106	88	63	29	--
2. Wheat-flour	50	48	46	43	42
3. Other food produce	20	21	22	24	25
B. Raw/Supplementary Materials	**335**	**437**	**539**	**628**	**680**
1. Fertilizer	72	79	92	80	50
2. Yarn	41	46	52	59	66
3. Raw Cotton	26	34	37	44	52
4. Chemical Material/Equipment	54	96	102	111	124
5. Newsprint	19	16	12	12	10
6. Paper	1	1	2	2	10
7. Other Raw Materials	122	195	242	320	368
C. Capital Goods	**275**	**362**	**453**	**527**	**614**
D. Other Goods	**90**	**102**	**71**	**59**	**77**
Total	876	1,058	1,194	1,310	1,439

*) Excluding Oil.

proportions will be 5 per cent, 47 per cent and 43 per cent. Compared to total imports, other goods will decline relatively from 11 per cent in 1969/70 to 5 per cent. This is the result of increased domestic production of certain goods in this group, especially finished textiles.

C. DEBT, CREDIT, LOANS, AND FOREIGN PRIVATE INVESTMENT

In addition to export earnings, other factors which determine the amount of foreign resources available for development are, on one side, our obligations to repay loans and interest, and, on the other side, the amount of foreign credit and foreign private investment that is available.

As can be seen in Table III-6 Indonesia has inherited a heavy burden of debts and obligations from the past. Most loans obtained before 1966 were used for low-priority projects; in fact, the projects were frequently carried out for purely political purposes. Consequently, their contribution to the people's welfare was very insignificant.

Table III-7 shows the amount of annual repayment of loans and interest for each year, following the rescheduling that was agreed upon in 1969. An obligation to repay debts amounting to 15 per cent of export value is generally considered heavy. It is obvious now that Indonesia's obligation to repay her debts is more than 20 per cent of the export value. The Government is determined to repay the debts to fulfill its promises and to maintain the nation's honour.

We can carry out this obligation, however, only if we have been able to create a healthy and prospering economy which produces the resources necessary to repay our debts. To achieve this, a substantial inflow of foreign resources will be necessary in the years to come. The majority of these foreign resources may be expected to fulfill the inter-governmental obligations, although a large part of the resour-

Table III-6

FOREIGN DEBTS AS OF 30 JUNE 1968
(in millions of US $)

	Due in 1967	Debt Total
Countries Participating in the Paris Meeting	294,9	802,1
France	48,7	114,5
West Germany	49,3	175,7
Italy	48,9	123,2
Japan	47,1	109,9
Holland	25,6	53,2
Great Britain	15,4	25,3
U.S.A.	59,9	200,3
Pakistan	10,4	10,4
Other Western Countries	8,6	23,4
East European Contries & Jugoslavia	291,1	1,106,7
Other Debts	-	269,2
TOTAL	605,0	2,211,8

Table III - 7

REPAYMENT OF FOREIGN DEBTS
1969/70 -- 1973/74
(in millions of US$)

	Total *)	Percentage of Export **)
1969/70	81	10.8
1970/71	199	23.3
1971/72	211	24.7
1972/73	208	23.2
1973/74	211	21.1

*) Including repayment of oil debts.

**) Including gross amount of oil reduced by cost of produotion and investment returns.

ces required might be in the form of "grants" in foreign private investment.

The increase of foreign debt will not become a very serious problem or a problem which cannot be surmounted, provided we are able to formulate, finance and implement an appropriate development plan. With such a development plan the past, present and future obligations can in the long run be met. Without successful development even the inherited economic and political obligations could not be met.

Rehabilitation of the present export capacity and the creation of export capacity in new areas will take both time and money.

The successful completion will be of major importance, but it can only be attained in the future. To be realistic and create an orderly planning process that does not depend on the outcome of yearly meetings, the Government has already urged upon its creditors to, as soon as possible, agree on a postponement of all obligatory repayments rising out of debts incurred before 1966. This problem is under review. It is hoped that we will be able to formulate a recommendation for general settlement in the near future.

In order that we may discharge our obligations fully, the recommendation for general settlement must include a repayment plan which takes into account the projected foreign exchange earnings, the method of financing the development plan, and the further obligations growing out of the development plan itself. It is expected that the settlement will be such that the ratio between the repayment of old and new debts and our foreign exchange earnings is appropriate. If most of the export earnings must be used for debt repayment, then the health of our economy will definitely be endangered again, to the extent that our ability to meet our obligations would again be in doubt.

D. THE PROJECTED BALANCE OF PAYMENTS

Based on these explanations concerning exports, imports, debts and credits, and inflow of foreign capital, a projection of the balance of payments for the next five years may be made, as shown in Table III-8.

From the table it is obvious that our imports will exceed our exports, causing a deficit in our balance of payments. If our export earnings are to be further reduced by adding to them payments abroad for services, the negative balance will be even greater. Thus it is clear, from Table III-9, that the largest item under services is that of shipping/insurance, since imported items are carried by foreign ships.

The value of investment during the next five years is still low because the transfer of profits from foreign investment is expected to increase only after 1973. To determine the balance on current transactions, the cost of services should actually be added to the interest on foreign debts. But to obtain an overall picture of our total debts and obligations, all our foreign debts and interest payments are combined into one entry.

T a b l e III - 8

PROJECTION OF THE BALANCE OF PAYMENTS
1969/70 - 1973/74
(in millions of US $)

		1969/70	1970/71	1971/72	1972/73	1973/74
I.	Exports (fob, including net foreign exchange earnings from oil)	672	775	784	827	924
II.	Imports (fob, excluding oil)	-876	-1058	-1194	-1310	-1438
III.	Services (excluding oil)	-197	- 237	- 281	- 320	- 362
	Balance of current transactions	-401	- 520	- 691	- 803	- 876
IV.	Repayment of foreign debt (excluding oil)	- 58	- 179	- 203	- 202	- 205
V.	Capital required	459	699	894	1005	1081
	a. Public sector	402	613	780	862	910
	b. Private sector	57	86	114	143	171
Situation if the debt repayments are fully postponed:						
	Balance of current transactions	-401	- 520	- 691	- 803	- 876
IVa.	Repayment of foreign debt (excluding oil)	- 58	---	---	---	---
Va.	Capital required	459	520	691	803	876
	a. Public sector	402	434	577	660	705
	b. Private sector	57	86	114	143	171

Table III - 9

PROJECTION OF SERVICE *)
1969/70 - 1973/74
(in millions of US $)

	1969/70	1970/71	1971/72	1972/73	1973/74
a. Shipping/insurance	105	127	143	156	170
b. Transportation/other services (net)	87	93	98	103	108
c. Investment Returns	--	2	10	16	24
d. Interest	5	15	30	45	60
	---	---	---	---	---
Total	197	237	281	320	362

*) Excluding Oil.

T a b l e XII - 8

PROJECTION OF THE BALANCE OF PAYMENTS

1969/70 - 1973/74

(in millions of US $)

	1969/70	1970/71	1971/72	1972/73	1973/74
I. Exports (f.o.b. including net foreign exchange earnings from oil)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
II. Imports (c.i.f. excluding oil)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
III. Services (excluding oil)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Balance on current transactions	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IV. Repayment of foreign debt (excluding oil)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
V. Capital required	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
a. Public sector	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
b. Private sector	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Situation if the debt repayments are rescheduled

	1969/70	1970/71	1971/72	1972/73	1973/74
Balance on current transactions	[illegible]	[illegible]	691	808	876
IVa. Repayment of foreign debt (excluding oil)	---	---	---	---	---
Va. Capital required	[illegible]	320	691	808	876
a. Public sector	[illegible]	252	577	650	729
b. Private sector	57	68	114	158	147

CHAPTER IV

REGIONAL AND RURAL DEVELOPMENT

A. REGIONAL DEVELOPMENT

Introduction

As in the case of national development, regional development is based on two main principles. The first principle is the Pantja Sila philosophy which must be adhered to firmly. The democratic economic system, the characteristics of which have been confirmed in the MPRS Decision No. XXIII, will remain the principal guideline for regional development. The second principle is the Unitary State. This means that every aspect of the regional development plan and its implementation must represent activities which would strengthen the unity of Indonesia. This unity comprises political, economic, social, cultural and defense aspects.

Economic development implies the realization of economic potential. The economic potentials are found in the regions. Thus national development is identical with regional development.

1. Situation and Problems

Beside the similarities among the regions of Indonesia, each region has its own characteristics, potential and problems. Some of the differences are due to geography since Indonesia is made up of large and small islands scattered over a wide area. Moreover, the infrastructure related to communication has been deteriorating for years. The complications caused by the poor condition of transportation and communication result in inequalities in the economic growth of the various regions. If we cannot rapidly overcome these difficulties, certain areas will be isolated. This may happen not only to the regions consisting of small islands, but also to the remoter areas on the big islands where land communication is deteriorating.

The differences in the regions' economic growth are also partly caused by the differences in economic potential. Some regions have great potential in mining or plantation, agriculture, and some in other sectors. For example, Bali possesses a great potential in tourism, and Nusa Tenggara in livestock. Up to the present time, we have not fully studied the potential of each region. Systematic research or survey of these regional resources will be a necessary underpinning for regional activities in the future.

The geographic differences, deterioration in transportation and communication, and differences in economic potential all result in different regional problems. There are areas whose major problem is in sea communication, while in others the people are facing the problem of improving land communication facilities. Certain regions are in need of manpower, while others have to solve the problem of city growth as a result of urbanization. There are even regions which always have a rice shortage, although they are located not far from the rice surplus areas.

The differences among the regions are also basically due to the lack -- over a period of many years -- of a suitable and effective policy of regional development. Included, among other things, are the problems of investment projects, of distribution of financial resources, of inter-regional trade, etc.

In the past, a large number of projects were carried out only for political ends without properly considering technical and economic factors. Consequently, those projects were non-productive and increased the problems. They serve no useful purpose and represent large expenditures that must be borne by the people.

Financially, there is a question of monetary balance between the Central Government and the regions, a question which has not been solved over the years. Such a situation not only obstructs development activities but also causes endless problems. Because of the lack of complementary resources, the regions have not been able to make effective use of their financial resources. The majority of ADO, which is supposed to be used for reconstruction has been utilized to cover routine expenses. These problems are also related to the problem of autonomy which constitutes the delegation of rights and duties to take care of the regions' internal affairs. These problems have persisted for a long time.

In the meantime, the policies outlined by the Government cannot be passed on to the regions and properly implemented, as there are difficulties in communication. Inter-island trade and the collection of various taxes have also been obstructed by difficulties in communication. The Government has outlined a policy which is founded on the principle that Indonesia is a single economic unit and that improper or illegal levies must be eliminated. At the present time we are gradually beginning to surmount these problems, as communication improves.

2. Policy and Measures

Starting from the principles described above, there will be only one national development program providing the basis, objectives, purposes, projects and priorities of national activities. Therefore regional activities and initiatives will be included in the framework of our national development program. This implies that the regional working programs and activities must be directed towards supporting the national development program.

By emphasizing the priorities and directives of the national development program, all regional activities and initiatives will be integrated in a coherent pattern. A process of selection will be undertaken to decide which fields or sectors of the regional working programs and activities can be implemented to support the national development program.

Thus regional development is any development activity carried out in the regions, which consists of:

(1) the national development activities and projects located in the regions;

(2) the regions' own development activities and projects, outside the ones worked out by the Central Government.

In reality, there is not any project "within" the Central Government, as they are located in the regions. The distinction between a "central project" and a "regional project" is based on the differences of their technical responsibilities and financing. The so-called "central project" is essentially the development project which has strategic value as far as the national interest is concerned. A project has a national value if it can promote our economic potential throughout the nation. Bearing in mind our present financial and material limitations, it is very important to determine national projects and priorities. We will not be able to direct our limited abilities towards the strategic sectors if we do not determine which priorities are based on the national interests. Consequently, projects of national interest are to be integrated into a consistent totality of projects.

Because these projects are intended to develop our national economic potential, their location must be considered in such a way that they will be in accordance with the possibilities and conditions of the respective regions. On the basis of this consideration we are able to predict that a national project whose location has been decided can definitely be implemented at minimum cost and maximum benefit.

The Central Government is responsible for financing the "national projects" carried out in the regions, and their implementation will be fully in the hands of the government departments concerned. In this case, the governor/regional chief must account for the success of any development project within his area, in the sense that he must give full assistance to and participate in the supervision and smooth running of the implemented projects. The project officers are obligated to submit their reports to the Central Government and also to the governor. Furthermore, the governor will report to the Government on the implementation of the development projects in his area.

Although we have only one national development program, regional participation is essential and must definitely be developed to the maximum. This regional participation will be simultaneously integrated with real regional autonomy. The "regional projects" not included in the Five-Year Development Program are entirely the responsibility of the regions and must be financed by them.

In developing regional participation, all activities and efforts must be based on the real and legal resources of the regions and included in the totality of the national development plan. In other words, regional activities and efforts must be complementary components of the national development plan.

With the availability of the program patterns within the national and regional plans, regional efforts and abilities can be effectively encouraged to support the national projects.

Meanwhile, sectors for implementation constitute an important component of the plan. Therefore special attention will be given to the apparatus of implementation in the regions. The planning and implementing units will be greatly strengthened. In this respect, the governor/regional chief is the sole authority in his area. The governor is genuinely an administrator in the widest sense, i.e. he is a government administrator, a development administrator and a regional community administrator.

In line with minimizing differences in development between the regions, particular attention will be given to the rehabilitation and development of the transport and communication infrastructure. Better communication and transportation will improve the relationship between the Central Government and the regions, between one region and another and within the regions themselves. Thus we may be able to prevent remote areas becoming isolated.

Furthermore, within the framework of intensifying regional development, a policy has been devised for a harmonious and effective regional development program. The said policy takes into account the differences in the potential and problems faced by each region. The direction of the policy is always in accord with the principles mentioned above. In this fashion, the attempts to solve the problems the different regions face in achieving economic integrity will be coordinated in such a way that a strong economic unity will take shape.

The measures to be taken include the solution of the problem of financial imbalance between the Central Government and the regions, the problem of regional autonomy, the decentralization of management in economic activities, the problem of development planning and implementation and so forth. Everything should be directed toward the economic development of the regions looking toward the ultimate objective of integrating the national economy.

Three considerations will apply particularly in deciding the location of a project, i.e. the principle of efficiency, the principle of inter-regional balance, and the principle of balance within the regions. The principle of efficiency means the efficient use of our scarce resources through selection of appropriate locations. The principle of inter-regional balance means decreasing the too great differences in wealth and development between the regions. The principle of balance within the regions is related to the question of selecting the best investment for a region.

The three principles are not always parallel for a given project. Therefore, in implementing them an effort will be made to attain optimum value.

To prepare for future development, systematic research will be conducted to study the development potential within the respective regions, so that they may be applied to national development.

B. RURAL DEVELOPMENT

Introduction

The large and small areas which are entitled to take care of their own internal affairs, as stipulated in Article 18 of the Constitution, generally include urban and rural areas.

Rural areas include the villages. A village, referred to as an administrative unit, is the smallest area which has the right to settle its internal affairs.

The differences between urban areas and the rural areas lie in the relative concentration or distribution of social, political and economic activities. On the basis of realistic, practical, and efficiency considerations, and taking into account social, political, and economic factors, sound regional development is based upon an allocation of activities as between rural and urban areas so as to take advantage of the typical characteristics and facilities of each type of area. Urban areas tend to show the high physical, social, economic, and political density of infrastructure.

For this reason, big industries with their up-to-date technological capacity, are generally found in the urban areas. Activities which presume the availability of large areas and a working system directly bound by nature, remain as one of the major characteristics of the rural area. Urban areas are known as areas of government, trade, cultural and industrial activities. Rural areas are those in which small industrial and agricultural activities are conducted.

The development of a region is reflected in the development of both its rural and urban areas. These areas are interdependent. For example, the rural areas serve as the source of foodstuffs, or industrial raw materials, of construction materials, and even of manpower for the urban areas. On the other hand, the urban areas provide facilities for the accumulation and distribution of commodities from and to the rural areas, such as the agricultural export products, agricultural equipment, credit facilities for production activities, etc.

Regional development can be achieved, if the existing government structure is in harmony with the potential values in the regions. The smallest area which is entitled to take care of its own internal affairs must, at least, include urban as well as rural areas, so that a village will merely constitute an administrative area which is entitled to settle and take care of its own affairs. In other words, the development of an area will not be moving toward the establishment of a village as an autonomous area, but toward the increasing number of small areas in which villages will exist.

1. The Situation and Problems

1.1 The Village Potential

The improvement of the standard of living can be achieved through national economic development based upon the potential of urban and rural areas.

It has been mentioned that the difference between urban and the rural areas is in the concentration or dispersion of economic, political and social activities. An urban area contains a concentration of trade and industrial activities in general, while a rural area is a place of agricultural and small industrial activities.

At present Indonesia's economy is predominantly agricultural. The greatest potential for development is found in the rural areas. With the development of the industrial sector, the potential for further development will shift toward urban areas. However, for the sake of regional development, the function of the village as the unit of the rural area will remain important.

Therefore, rural development is essential not only because of the low standard of living of the villagers, but also as a necessary foundation for the development and growth of a sound national economy.

The different conditions of the rural areas in Indonesia will present different problems, so that different approaches must be applied in the various regions. According to their conditions, the rural areas in Indonesia may be classified into two main categories:

a. Category I

The village administrative units cover an extensive area, but have a small population and are in some areas isolated. In general, infrastructure is poor.

Generally speaking, there are still opportunities to engage in agriculture. Consequently, there is no problem of unemployment, in fact there is a lack of manpower. Under such conditions, one may easily change fields of activities.

An increase in food prices will encourage a shift from other activities to food production. This will obviously endanger other important sources of income earnings, such as the production of agriculture produce for export, rubber, copra, etc. A decrease in food prices will encourage a shift to other activities, such as to forest products.

There are rural areas located near the communication networks, so that they can be reached easily. Other areas are far from transportation and are difficult to reach. The latter are the areas in which the inhabitants live on subsistence agriculture and more frequently from one place to another (nomadic).

The population in those areas which are difficult to reach with the existing communications system primarily engage in subsistence farming characterized by low yields although the area may be potentially rich.

To improve productivity, efforts can be made to shift to agricultural enterprises located near the existing communication networks. This applies especially to farm agriculture so that the irrigation system may be improved at the same time. An attempt will be made to locate them near consumption centers, such as the urban and plantation areas.

Due to the shortage of manpower, production will be increased through intensification and the construction of villages near the networks of communication infrastructure. Extensification may also be conducted within the program of regional development, and as a consequence special workers will be brought in.

In conclusion, the rural development in the regions will take the form of increasing productivity in the agricultural sector or the construction of new agricultural villages.

b. Category II

Included in this category are the densely populated villages within extensive areas. The communication infrastructure is adequate and the villages can be more easily reached.

The possibility of expanding agricultural activities is limited and agriculture alone is no longer able to provide sufficient employment to match population growth. Therefore unemployment will increase continuously. The condition has reached a point where the urban areas are seriously affected because they have not been able to provide sufficient employment opportunities. As a result unemployment is spreading in the urban areas.

Any effort to overcome the problems of the urban areas will always be defeated by similar serious conditions if the rural areas themselves are unable to solve the unemployment problem.

Productivity in the rural areas is not yet significant. Intensification can be carried out in an attempt to promote agricultural production. Nevertheless this attempt has not yet been successful in providing significant additional employment for the agricultural sector. In the sparsely populated areas, an increase in productivity could mean economizing in the use of manpower, but in these areas there is in fact a shortage of jobs.

In general, rural development must be in the form of an increase in productivity on the one hand, and the creation of new jobs on the other.

It is thought necessary to promote small industries which are available throughout the rural areas since the possibility of expanding agriculture is limited. At the present stage of development, it is too difficult to establish heavy industries because of the financial investment required.

In line with the strategy of development, special attention will be given to small industries in the agricultural sector, that is industries which support agricultural production and process agricultural produce.

1.2 Village Community

The rate of economic development requires a balance between the development of urban areas and rural areas. At present, national economic development is mostly dependent on the economic activities in the rural areas, as the greatest potential is found there.

As the center of social, political and economic activities, the community of the urban area may easily accept new inventions, new ideas and new technological, monetary and cultural developments, etc. An urban area serves as an intermediate area connecting the activities of the rural areas to external progress, e.g. in international trade. It is natural that developments and progress in external areas would also be felt by or affect the rural areas. This naturally depends on the ease of communication between urban and rural areas and to their respective capacities.

In the urban areas, the institutional function is more evident than in the rural areas. In the latter, production is chiefly determined by the nature and ability of the individual.

As with its characteristic component agriculture, in which the rate of development is slow, life in the rural community is strongly bound by customs and traditions. New ideas for development are accepted slowly.

The urban community, on the other hand, will more readily accept inducements toward development, because of the more developed social, political and economic foundations as well as more adequate infrastructure available in the cities. In this case, urban areas and their communities actually serve as the transmitter of the "current of progress" to rural areas and rural communities. Through well-operated communication, the prevailing "current of progress" may be able to attain its objective effectively. Such communication can be in the form of physical, social, political or economic foundations. Thus the leadership of the village administration may function as the extension or relay-station of the transmitter of "the current of progress" mentioned above. The leaders and leadership seriously affect the development of rural areas and their communities.

Activities in urban areas need intensive capital. In rural areas, however, the influence of the monetary system has not yet been significant. This incongruity will inhibit the influence of progress emanating from the urban areas. Production in rural areas could also be influenced by the monetary power of urban areas. Therefore, due to their inadequacies, the rural communities will continue to be the object of such economic influences. Obviously this cannot be considered as a sound aspect for the development of the national economy.

1.3 Capital in the Village

In meeting their needs, such as food, clothing and housing, the majority of the rural community earn their living in the agricultural sector, particularly in food production. They manage their undertakings individually.

Their income is very low, particularly in the densely populated areas. Thus it is difficult to put aside part of their output as capital for further activities. In many instances their income is insufficient to cover their daily necessities. Consequently a large number of the farmers fall intc the hands of money lenders.

Such a tragic situation is aggravated by a system of marketing which makes it possible for traders to benefit from most of the farmers' output. This implies that, on one hand, the situation reduces the opportunity of the farmers to accumulate capital and, on the other hand, an excessive amount of capital is transferred to the urban areas. At present the capital utilized in the urban areas is not very productive. Hence, generally speaking, this situation is of less benefit to the productive growth of our economy. In fact, the growth is obstructed.

Manpower and extensive areas suitable for agricultural development as well as their other natural resources constitute the basic capital of rural development. Basic capital is abundant, although the locations are not evenly distributed in their respective regions.

Sufficient investment capital and working capital are necessary to put this basic capital to use. Investment capital may be in the form of production items, e.g. production equipment and materials, and transportation equipment. It can also be production and communication infrastructure.-

If the working and investment capital for the production and transport institutions becomes the community's responsibility then the construction of production and transport infrastructure, such as irrigation, roads, etc., must be provided by the Government, in this case the regional government.

The regional government will make use of the regional financial resources to carry out this task. The revenue from such resources is very limited at present. Nevertheless at the present level of development in which the productivity in the rural areas is still low, manpower is over-supplied. If the regions' financial resources can be regulated through government administration, then the other regional resources may be accumulated and utilized only through the authority of the rural administration and the leadership of the community.

In conformity with the spirit of mutual help ("gotong rojong") prevailing in the community, work can be accomplished through the community's own efforts. Village irrigation and roads have become villagers' activities and are considered as their obligations. It can be predicted now that a more definite allocation of obligations between the Central Government and the rural community may be worked out after the agricultural sector has been operating with intensive capital and high productivity, and after the regions have developed sufficient resources of income.

In addition to the authority of the rural administration and the community leaders themselves, the Government can also take into account the material assistance and guidance it may render to the villages within the framework of the intensification of the application of their manpower on the basis of mutual help. Material assistance can be conducted through subsidies for the regions and through long-term credits. In the meantime it must be noted here that such assistance is to be channeled to the villages.

The Government has advocated the establishment of credit institutions for the rural areas to assist the agricultural producers in surmounting their difficulties by providing both working capital and investment capital. However, the procedures in such institutions are neither efficient nor beneficial to actual production as they concentrate merely on the banking system.

Another difficulty arises from the rural community itself, because of its minimum knowledge of and guidance in relation to the application of production credit. The credit is frequently used for consumption. In many cases the credit cannot be repaid.

Most agricultural communities are beginning to realize that a more satisfactory agricultural output can be attained through intensification of efforts and that agriculture may also be a sector in which a great amount of capital can be invested. This realization helps the Government in its efforts to increase agricultural production. Yet if this awareness is not properly directed, farmers who in general are less capable of managing their own financial affairs could be victimized by money-lenders.

Therefore at this stage it is imperative to set up credit institutions which understand and serve the actual production requirements of -- and adjust themselves to the stage of development in -- the rural community in general. In addition, these institutions are expected to render assistance in marketing agricultural produce, so that the excessive flow of capital from the rural areas to the urban areas can be checked.

2. Policy and Measures

Rural development is carried out in order to establish the basis for the development and growth of a sound national economy. Any action or measure taken must be viewed from the position of the rural area being closely tied to the urban area within the framework of regional development. Furthermore, a balance in economic development and growth between the rural area and the urban area is required at their respective levels of development and capacity.

As the center of social, political and economic activities, the urban area will pave the way in changing and developing the rural areas. Effective communication must be established to pass on the results of progress continuously and effectively to the rural areas. The change of mental attitude and the improvement of the rural community's skill and knowledge will be emphasized. Village leaders and the rural government apparatus, together with the rural institutions, will play a major role in the implementation of the changes.

Rural development is carried out within the framework of a proper balance between the Government and the rural community. The Government should provide infrastructure, guidance and supervision; the rest will be the responsibility of the rural community. Efforts will be made by the Government to provide the village with material assistance and to intensify and promote the implementation of mutual help. At the same time, the Government will support the accumulation and management of capital for the actual production requirements in rural areas.

The necessary measures to be taken are:

(1) to conduct extensive research into the function of the rural areas within the framework of regional development (the Pattern of the Regional Development Plan). The Government will attempt to move isolated villages to areas along the communication network so that the rural areas could really be included within the orbit of regional economic development while always keeping in mind their potential value;

(2) to make an effort to influence the mental attitude of the rural population, so that they may become alert to the possibilities of development. This must be accompanied by the improvement of their knowledge and skills. The prime objective ofthese efforts is to increase the level of productivity. With all this, however, consideration must be given to the institutions already existing in the rural community based upon a life which is greatly influenced by nature, tradition, belief, sense of mutual help, traditional working system, etc.;

(3) to promote the establishment of credit institutions in the villages which serve the production requirements and adjust to the capacity of the rural community. It is expected that the institutions can assist the farmers in marketing their agricultural produce. Thus the excessive flow of capital from the rural areas to the urban areas could be checked;

(4) to materially assist the villages in organizing and intensifying the mutual help system of work. This help should be directed toward activities which supplement and improve productive equipment and social institutions. Such assistance is not meant for purposes of consumption but rather for help in acquiring materials which are not found in the rural areas;

(5) to make the structure of the rural administration more effective and to synchronize the rural institutions.

CHAPTER V

GOVERNMENT ADMINISTRATION, PLAN IMPLEMENTATION AND ANNUAL OPERATIONAL PLAN

A. GOVERNMENT ADMINISTRATION

Introduction

A new development plan can only be successful if there is an effective program for its implementation. To carry out development programs successfully an effective and efficient government apparatus is needed. For this reason, in the Five-Year Development Plan, improvement in government administration is given special importance. The improvements will be overall in nature but there are certain matters which need immediate attention. They are particularly those which obstruct planning and the implementation of development planning. Thus government administration will be improved by stages in accordance with the scale of priorities.

Reorganization as well as improvements in the government administration are aimed at "achieving a stable government apparatus and administration, so that it may continue effectively and efficiently working in the interest of the people, not for groups or individuals". The immediate goal of improving the government administration is "to achieve efficiency in organization, in procedure and personnel so that the government apparatus and administration may be able to formulate development plans and programs which are feasible to implement".

The government administration will no longer carry out solely routine functions; it will also carry out development functions. The government administration will not only attend to government administrative functions but will also promote and direct society toward development. As the functions of government administration expand, there is often disharmony between actual requirements and the existing administrative apparatus. Attention should be given to this matter as part of the effort to improve the Indonesian Government's administration.

This improvement will be carried out in accordance with the principle of economic democracy. This principle requires the implementation of government administration for an economic system which is directed neither towards "freely competitive" methods nor toward methods which embody excessive government intervention. The principle demands that monopoly, especially in the economic field, be reduced.

1. Conditions in Government Administration

Since the end of 1966, many improvements have been made in public administration, yet more improvements in various sectors are still necessary.

Between 1958 and 1965 the condition of government administration was such that it had an unfavorable effect on development. Expansion of the civil service was directed more toward quantity than quality. Ambiguities of authority and responsibility existed among the various state bodies and institutions.

Government administration was oriented more to politics than to economic development. Aside from this, the duties of the executive, legislative, and judicial bodies were not clearly defined. Thus control over government administration was incomplete. Among other things, Parliament's right to approve the state budget was not properly exercised.

Under these conditions, government administration was more of a burden than a support to the economy. This also was due to principles of efficiency being ignored and a lack of rational management. Economic activities to a great extent were based on subsidy. Irregularities, as well as graft, were due to excessive government intervention in the distribution of quotas, licences, permits etc. All this did not encourage sound economic development.

The number of civil servants increased rapidly. Nevertheless, their distribution, qualifications and levels of skill did not meet the requirements of the different sectors which were important to the country's development. The number of officials discharging substantive or operational duties was more than balanced by a large number of officials in the administrative services. The budget for the civil service became a burden to the state budget. Nevertheless, the real salaries of civil servants became increasingly meagre because of the persistent inflation.

Nor was there any serious improvement made in "organization and method". So the structure and management of government agencies also contributed to ineffectiveness and inefficiency.

It is urgent that substantial improvements be made in financial administration as well as in equipment and supplies. For instance, in the financial administration there was no standardization of "items of cost" for routine or development expenditures. There were routine items which were used for non-development purposes as well as for development, while the development items included development expenditure as well as non-development expenditure. There was also a need for improvement in budget formulation, recording, accounting, responsibility and financial control. Methods of purchasing goods for the Government, sales, contracts, and other transactions also needed to be improved.

Many state enterprises became inefficient and a burden to the state and society, because they had a monopolistic position and were given subsidies. The primary aim of their funds was not realized. Their legal status was so diverse that it was difficult for them to be managed.

There are still various weaknesses in the relationship between the Central Government and the provincial governments, especially on matters pertaining to decentralization and regional autonomy. Decentralization and regional autonomy can be properly carried out only after this autonomy becomes real. In this way, the provinces will be able to finance their development efforts from sources that they raise themselves and from what they can realize through the financial distribution between the regions and the Central Government. Besides, there is still confusion because of the many central government institutions/organizations in the regions. As a result, coordination in certain fields has become more complicated.

Another weakness is that insufficient attention was given to improving scientific bodies, investigation and surveys and the compilation of statistics. These are all very important if planning and implementation of development are to be carried out effectively.

Since 1966, efforts have been made to improve government administration. These include, among other things :

a. The reorganization of state institutions more in line with the 1945 Constitution. The highest of such state institutions are returned to their former position - no longer within the framework of the Government.

b. Improvement and simplification of state institutions and government departments (and central government institutions which are non-departmental), regarding among other things the specification of their main duties, organizational structures, etc.

c. Enumeration of personnel functions and their utilization.

d. Classification of state enterprises according to legal status, organization, and responsibility as well as the position of employees of state enterprises, etc.

e. Discipline in banking by the promulgation of new basic laws for the main state banks and the Central Bank.

f. Changes and improvements to make Bappenas (National Planning Body) the Central Planning Body.

g. The gathering together of procedural problems and the collecting of statistical data as well as systematic reporting.

h. Clarification of the rules for budgetary planning.

2. Policies and Measures in the Development of Government Administration.

Improvements in government administration will be directed toward a reduction of the bureaucracy as well as toward improving methods of control and creating "indirect built-in controls".

In further developing the apparatus to implement development, emphasis will be on maximizing the peoples' creative ability through guidance and encouragement rather than through direct controls.

There will also be improvement in the ability to shape policies for the different social and economic fields which may support or promote development, such as those of the monetary, fiscal, price, export, and import fields, etc. These policies must be consistent and correlated.

The formulation of sound policies and their accurate implementation will be emphasized. The accurate implementation of policies will favorably influence the successful achievement of development.

2.1 Improving Organizational Structure

To assure maximum results in implementing the Development Plan organizational (institutional) and structural improvements are needed, such as:

a. Continued improvement and simplification of the Central Government's administrative structure, by better defining the main duties of government organizations. Redundant organizations and over-lapping must be minimized. Positions are to be filled according to the importance of government bodies in implementing development planning. Non-departmental bodies in the Central Government are to be classified according to their importance and should be simplified. The rest are to be placed under the responsibility or coordination of the relevant departments. These improvements are primarily necessary for government bodies which implement those sectors which are given high priority in development planning.

b. Relations between the Central Government and the provinces are to be improved, stressing decentralization, deconcentration and regional autonomy. Organizations which represent the Central Government in the provinces will be regulated, and activities of the different "services" in the regions are to be coordinated. In this connection a bill has been submitted to improve the financial balance between the central and provincial administrations. This bill also regulates the relationship between the provinces and lower level administration. Village administration will be improved so that it may carry out its functions more efficiently. Improvement in provincial administration and coordination in its activities and in defining the authority of the regional heads are considered of great importance because it is in the provinces that development projects are in fact located.

c. Diplomatic posts abroad will be further regulated and their functions will be more explicitly defined, thus enabling them to carry out the Government's political and economic policies. Activities of our missions abroad will be coordinated by the heads of these missions.

d. Improvement in the structure of government institutions will be continued. This improvement relates to management, delineation, authority and responsibility, momenclature, echelon, area of control etc. This will also be implemented by improving "Organization and Methods" (O & M).

e. Improvements will be made in coordination, integration and synchronization as well as in communication between government institutions. This is especially important in fields requiring consistency, for instance between institutions administering, supplying and distributing finances. It is also important for implementing development programs and projects, not only because the sources of finance are varied, but also because of the variety of technical bodies involved in the implementation of such programs as the building of dams, rural development, etc.

2.2 Improvement in Procedures

Improvement in procedures will also be carried out, among them:

a. Procedures of a macro nature, such as procedures in export, import, inter-regional trade, issuing of licences for industrial development, domestic capital investment, foreign capital investment, etc. will be simplified so as to guarantee their smooth application, without disregarding the objectives of productive utilization. Problems of administrative procedure which in the past constituted obstructions, will be minimized.

b. Procedural problems of a micro nature such as improving work relations and management of government institutions.

This will be done by the Institute of Public Administration by giving directions and upgrading the skill of personnel concerned with "Organization and Methods". In addition, "O and M" units will be established and strengthened within the government bodies.

2.3 Improvements in Personnel

Personnel improvements will help in carrying out the Development Plan, so that the government apparatus will be more capable of functioning actively and effectively.

Among other things, the following steps will be taken:

a. An effort will be made to more rationalize the number of officials in each government institute in accordance with their respective functions. This will be done according to norms of "O and M", as formulated by the Institute of Public Administration. The standards for a rational number of officials for a government institution are then compared with the D.S.P.P. (Record Concerning Personnel and Supply) which was formulated by the Office of Personnel Affairs. In this way objective data concerning as excessive or inadequate number of personnel in a government body can be known. Based on those data, decisions will be made regarding the gradual transfer of officials to sectors which are growing as a result of development. A more appropriate utilization and re-allocation of personnel will also be implemented by taking into account the distribution in quantity as well as quality of the personnel in the development sectors which are given priority (for example, from those sectors with excessive personnel to those sectors with insufficient personnel, by retraining).

b. "Career-service" will be continually fostered on the basis of merit. The Office of Personnel Affairs will be strengthened to carry out this function. This is closely connected with improvements in structure and organization, for instance, in the determination of echelons, better defining of authority and responsibility, etc. At present a Basic Law concerning Government Personnel is still under study, and will soon be enacted. It will guarantee the continuity of administration, so that personnel will not be disrupted by changes of higher government officials. This will help to eliminate the "Spoils System" on which selection is based on personnel, or political considerations, and give job security to civil servants.

c. At the end of this Plan period it is hoped that government wages and salaries will be more in keeping with the cost of living. This will be done in stages, in line with the Government's ability to increase revenues. The wage and salary system will be changed so as to give incentive to increased productivity, and to sectors that have priority in development. Thus, wage policy and salaries will "tie wages to merit".

d. Disciplinary measures will continue to be taken against elements of the Communist Party/Gestapu and its affiliates, who have disturbed security and work efficiency.

e. Educational programs, training and upgrading of government officials are geared to development programs which are given priority. There are two forms of training and upgrading. First, the upgrading of technical capability by experts giving instructions on how to improve farming, financial controls, tax collection, treasury, plan formulating, etc. There is also training and upgrading in "O and M", financial administration, equipment management, etc. The Institute of Public Administration will have to be improved to carry out its functions more effectively.

In addition, the government institutions concerned also conduct their own training and upgrading. This program is not only meant for central government officials but also for those in the provincial governments. For training in certain fields where no facilities are available in Indonesia, the officials may be sent abroad. In this connection, foreign aid may be used to advantage. Plans will be based on the priorities in the Five-Year Development Plan.

f. Personnel morale may be expected to improve in line with greater benefits in their welfare.

2.4 Financial Administration Improvement

Improvements will also be made in financial administration, equipment and supplies. Improvement in financial administration is designed to increase government revenue (including increased collection of taxes within the existing laws, but through creating enthusiasm for work), determination and care in disbursement of the state budget. Credits must be utilized selectively, and financial control is to be carried out under a legally constituted controlling institution. Improvement in this field is very important and it is given priority because a sound and efficient state financial administration will reduce extravagance and promote thrift. This will also minimize corruption and graft. Work has begun on performance budgeting so that government expenditure will be more program-oriented.

First of all, the state budget should be functional with programs classified to conform to the allocations of the Five-Year Development Plan.

Improvements will be made in the procedures of the state budget expenditure and government capital participation, as well as credits. These will all be adjusted to the targets of physical progress for a development program or project, and will better ensure consistency between its physical and financial planning.

2.5 Administration Improvement in Equipment and Supply

Administration of equipment and supplies will be improved. This includes the inventory system, transfers, purchasing procedure, contracts, and declaration of obsolescence. Tendering will be given priority.

2.6 Improving Statistical Administration

To improve the collection and processing of data, monitoring and reporting will be instituted. The Central Bureau of Statistics will be strengthened and enlarged to carry out its functions because of the close connection between the accuracy of data and the preparation of statistics. Cooperation among government statistical units will be increased.

Statistical improvement will be made selectively, i.e. in fields that are necessary to support the sectors that are given priority in development.

2.7 Improvement of State Enterprise Administration

Corrective measures will continue for state enterprises, limited liability companies operating with state capital, institutions, etc., so that they may be able to fulfill their development tasks rather than become a burden to state finance.

Steps to be taken include :

a. State enterprises which actually function as a governmental body rendering only public services will have to be considered as a governmental body or a departmental enterprise.

b. State enterprises which actually provide public utilities may continue to be state enterprises and will be outside the government bureaucracy so as to have operational autonomy and run more efficiently.

c. State enterprises which operate on a profit basis competitively, should gradually be released into the private sector (jointly with private enterprises or with foreign capital investment) or be turned over to private enterprises, i.e., limited liability companies subject to civil law. In order to improve the management of enterprises, management consultants will be utilized and a more effective financial control will be carried out by the authorized bodies. Stricter regulations will be carried out against other independent bodies, such as institutions, public limited liability companies, etc. The uses of profits of state enterprises capitalized partly of wholly out of state revenue will be specifically stipulated. In this way these funds may be used effectively for development.

2.8 Improving Research and Development in the Study of State Administration

Research and study will have to be undertaken in the field of administration. This is particularly important in those areas involving development planning and implementation for the near future. In this connection, criteria could be formulated for determining a rational number of personnel for any government agency. The methods of formulating the Plan, evaluation of projects, the accurate implementation of annual plans and the system for decision making must also be based on a predetermined intention.

Administrative improvement will be based on special aspects of administrative planning and development implementation.

This includes the following :

a. Regarding administration of development planning, attention will be given to improving the basic apparatus, i.e., the central planning body and planning units of the Central Government and provincial governments. This is necessary because planning is a continuous process. Based on the evaluation of plan implementation, adjustments will be made for each succeeding planning year.

b. Improvements will include increased capacity in the statistical agencies and the research and survey units. The methods of adjustment in the Five-Year Development Plan will be improved on the basis of experience because of the availability of better statistics and improvements in research and survey. For statistics, cooperation among the all units will be intensified. An integrated statistical working program under the Advisory Body of National Statistics will have as its objective the development of a National statistical system. Methods of formulating and implementing projects will also be improved. This is very important to ensure the success of the development effort. Government planning and programming agencies will have to be strengthened.

c. Finally it should be stated that the training and upgrading of planning officials will continue in order to enhance their ability and to strive for standardization of concepts and terminology in planning. The training is meant for planning officials in the Central Government as well as for those in the provincial governments. For this purpose, foreign technical assistance will be utilized.

B. PLAN IMPLEMENTATION AND THE ANNUAL OPERATIONAL PLAN

Introduction

As has been pointed out previously, the success of a development plan depends not only on good planning, but also on its implementation. In other countries' experience and Indonesia's experience in the past, the problem of plan implementation did not receive adequate attention. This was because the plans in the past were unrealistic, or were not designed in a way that could possibly be implemented, or rational and technically sound plans simply had not been implemented. For this reason, the present Plan gives its main attention first to the problems and requirements of its implementation.

In implementing this Five-Year Development Plan we need a capable government administrative apparatus. The development of a government administration constitutes one of the targets of the Five-Year Development Plan. Upon improvements in the government administration itself will depend the soundness of the Five-Year Development Plan's implementation. In addition to the need for a good plan, difficulties, obstacles, and lack of administrative ability are the main sources of weakness in social and economic development.

The present Five-Year Development Plan is translated into annual plans which provide a guide to program implementation and which compare the implementation with what was planned. The present Development Plan is implementation-oriented.

1. The Five-Year Development Plan is translated into Annual Operational Plans

In planning development to be carried out at present, there are stages in which activities are first carried out simultaneously, i.e. the planning stage of the five-year plan, the formulation stage of the annual operational plan as reflected in the state budget, the preparation stage of program implementation and, after this, the implementation of the plan. Evaluation of plan implementation will be made periodically. Evaluation accompanied by improvements in the collection of statistical data and reports will be used as a basis for better annual operational plans for the following year. In this way the Five-Year Development Plan may be adjusted flexibly. The compilation of these annual operational plans integrate the main policies and overall priorities. This is carried out by the formulation of a more detailed description of the plan projects and programs for one year.

The annual operational plans will contain the following: a description of economic conditions in the previous year, an overall description of the available economic resources for the coming year, a description of the economic conditions of the year in question, a determination of targets and policies for that year, an accurate formulation of investment plans, the formulation of sectoral programs and the determination of projects to be implemented.

These adjustments through annual plans are meant to provide flexibility in implementing the Five-Year Development Plan. Thus the present Development Plan is dynamic.

The annual state budget, plus the planned (estimated) credits to be granted through banks, and foreign exchange allocation which are formulated in the annual plan constitute an actual guide for government activities in implementation. These three items, accompanied by provisions for their financing, constitute a program of action for the agencies implementing the development programs and projects.

2. Annual Operational Plans as Effective Means for Implementing Plans

Based on planning experiences of many developing countries, the translation of medium-term plans into annual operational plans, in recent times, has been carried out as an effort to devise a better planning method. In several countries, long-term and medium-term plans are not used as the foundation for a fixed program as they must remain flexible. A medium-term plan, such as a Five-Year Development Plan is used, rather, as a guide for directing activities and development which will be undertaken within five years. This is because plans must have a realistic appreciation for economic and social potential, as wel as administrative capacity. Scientific and technological developments should also be considered. All this leads to the need to revaluate plans within shorter periods than five years.

The annual operational plans are intended to provide more concrete action programs and policies so that plan implementation is more effective. If a plan is to be implemented, it must have an operative content reflected in a specific action program.

So far, we have discovered no uniformity as regards the methods and techniques of annual operational plans. Some newly-developed countries have succeeded in evolving more accurate and comprehensive annual operational plans than others. Indonesia will carry out annual operational plans and during the course of the implementation of the Five-Year Development Plan methods will be improved.

The agencies which participate in annual planning will also be strengthened.

Generally, an annual operational plan contains, as mentioned earlier, the following matters:

First, a description of trends especially economic, through a review of past developments and a forecast of developments in the coming year.

Second, an evaluation of financial and other resources which need to be taken into account.

Third, the overall formulation of annual aims and targets for a short-term development strategy.

Fourth, the formulation of consistent policies which are directed towards these aims and targets.

Fifth, sectoral and project plans in the government sector's investment program.

Sixth, coordination in the government sector's planning, planning of private activities carried out by the Government, and private sector planning.

A very important aspect of the annual operational plan is its relationship to the state budget. The annual operational plan must be reflected in the state budget. This is also true for the credit plan and the foreign exchange allocation.

A foreign technical assistance program and programs of research and survey should also be compiled.

3. Implementation Program and Project Planning

The Five-Year Development Plan, and in particular the annual operational plans, also contain an implementation program. This is broken down into development programs and projects and plans for their financing. Aside form development programs and projects, including their more detailed financing plans (among others, financing from the development budget, government capital participation, and domestic as well as foreign credits), the implementation program also specifies the agencies which will carry them out. The implementation program contains stipulations concerning coordination among the various agencies involved in any given program or project.

To achieve a sound investment plan the program and projects which constitute an integral part of it must be planned accurately so as to be economically, technically and administratively responsible.

Evaluation of the absorptive capacity of the implementing agencies has been initiated. As the plan is being implemented these evaluation efforts will be intensified. Suggestions concerning the projects will be channeled through the recording of "project digests" which have already been developed.

This will facilitate evaluation by the authorized agencies. Procedures for the planning and programming of projects and their implementation have also been developed. For this purpose, further improvements will be made in agencies related to research and the carrying out of surveys and feasibility studies.

4. Society's Participation in the Plan Implementation

To ensure sound plan implementation, especially in an effort to obtain the widest possible social participation and support, the importance of public opinion is taken fully into account in the Five-Year Development Plan. This will be managed by providing the public with ample information about the Plan. The Five-Year Development Plan is translated into annual operational plans to ensure its flexibility, for its possible improvement and to give a more concrete and specific action program guide in specific years.

The annual operational plans are largely reflected in the annual state budget. The Parliament, exercising its budget right, will ratify the state budget. Ratification is also designed to provide a legal basis and approval for the budget, and to guarantee the final implementation of the plan. The state budget will constitute the Government's action program for the period for which it has been approved by the Parliament.

During plan implementation, discussions will be held with social organizations, especially labor organizations which are involved with development activities. The opinion and participation of these organizations are important for successful plan implementation.

The role of mass media and mass communication will be broadened. This is important as actual participation will come about when the development activities are known and accepted by society. This matter will be elaborated further in the chapter regarding mass information and communication.

5. Synchronization of Planning Implementation among the Implementing Units at the Central Government

To ensure conformity between implementation and the pre-determined plan, it is necessary to coordinate the central implementing units with the central planning units. This coordination is also important for reaching agreement among various fields of activities within a certain development program or project. The actual responsibility for planning remains with the implementing agencies. Coordination of planning implementation is necessary in the formulation of policies which are required for immediate implementation. It would also ensure the consistency of various policies pertaining to a certain sector. Coordination is necessary in the evaluation of plan implementation which is required for the annual adjustments of the Five-Year Development Plan.

6. Coordination of Planning Implementation Between the Central Government and Provincial Governments

In accordance with what is stated above coordination of planning implementation will also be carried out between the Central Government and the provincial governments. The active role and participation of provinces in the implementation of the Five-Year Development Plan are very important as the programs and projects to be implemented in the Five-Year Development Plan are actually located in the provinces.

The specifications and other provisions will provide a guide for the regions in knowing the scope of their respective tasks as well as the implementation expected of them within the framework of the Five-Year Plan. In this way the programs or projects of several regions will be coordinated.

Central government agencies which are located in the regions must be simplified. This is necessary to facilitate coordination and cooperation with provincial agencies. The harmony, consistency and complementarity of programs and projects outside the Five-Year Development Plan with those of the Plan must be assured.

7. Development Policies for the Successful Implementation of the Plan

A very important aspect of successful planning is the formulation and accurate implementation of a set of consistent development policies affecting all fields. In the current Plan, apart form project plans, policy planning will also be instituted. This policy framework is intended to be a firm guarantee of economic stability. This is important in plan implementation as extreme price fluctuations will disrupt sound financing of programs or projects. Economic stability will make economic development possible.

The planning and implementation of these policies are especially important as it is through them that the Government will channel economic resources toward priority targets. A correct policy will stimulate enthusiasm for development activities and encourage investment.

In the implementation of these policies, decision-making and interpretations by implementing agencies from the upper to the lower level are constantly required.

8. Coordination Between Government and Private Sectors

Plan implementation must take into account the problem of coordination between government and the private sector. Many development activities of the Five-Year Development Plan are to be carried out by the private sector. The Government's role is to create a climate which will induce and direct the growth of private activities according to the pattern and priorities of the Five-Year Development Plan. Various policies and indirect controls will be employed by the Government such as policies concerning credits, taxation imports etc.

The Government will concentrate its investment on infrastructure and social welfare such as education, health etc. Investments in other fields are expected to come mainly from private initiative. If development activities by private enterprises in an important sector are clearly not forthcoming the Government will then carry out investment in that sector. In plan implementation, the Government will constantly maintain relations with the private sector to obtain its constructive views and encourage its increased participation in economic development.

9. Policies and Efforts for Mobilizing Financial Resources

A successful plan implementation also depends on sound planning of financial resources and the actual provision of financing for development programs and projects. This process has been initiated and if necessary will be improved.

Policies and efforts will be carried out in the plan implementation to ensure that the mobilization of financial resources is in accordance with the predetermined plan for each year. A compatible relationship must also be maintained between domestic and foreign financial resources. Related agencies will be improved and their capability will be increased.

Adjustments will be made immediately between financial resources and the investment allocation required when a divergence occurs from what has been planned. Adjustments are made by always taking into account the Development Plan priorities.

10. Consistency Between Program or Project Budget Realisation and Progress of Physical Implementation

In implementing the Five-Year Development Plan, and in particular the annual plans, maximum consistency and comptability must be maintained between the budget provisions and progress in programs' or projects' physical implementation. The physical progress of a program or project should not be obstructed by delays in the availability of financing which has been provided for in the Plan.

On the other hand an effort should be made to avert the situation in which the target of financial allocation has been attained but the planned physical progress has not. The coordination of the rate of budgetary releases and the pace of physical progress is particularly important for projects and programs which are subject to seasonal factors.

A procedure that relates project financing to physical progress has been formulated for projects included in the development budget and the Government's capital participation budget, as well as from domestic and foreign credits. A more detailed procedure will be outlined relating to the various stages in the budgetary process such as budget requests, budget approval, request for payment or financing and the granting of financing.

The principles of performance budgeting will gradually be introduced. Thus financing will be oriented more to development programs and projects. This method will also avert double financing of almost identical activities which are carried out by different agencies. Initially, the compilation of the budget will contain classifications according to programs of the Five-Year Development Plan.

11. Improvements of Financial Administration and Control

Improvements regarding financial administration and control will be carried out to ensure that plan implementation conforms to the Plan, and to ensure efficient and effective utilization of the budget. Priority is given to these improvements since, aside from increasing effectiveness and efficiency in utilization of the nation's finance, they will encourage thrift, avert waste and leakages and deter corruption. Sound implementation of financial administration and control also implies improved management of activities that involve the state's money.

For financial administration, improvements and corrective measures will be carried out in connection with the compilation of the budget, its recording, its accountibility, its profit and loss statement, and other aspects of its financial operations. The improvements will not only involve the regular government agencies but also other entities such as the state enterprises.

For the sake of efficiency, standard procedures concerning domestic as well as foreign transactions will be formulated. This will result in economy and in the procurement of commodities needed for development programs and projects.

A program for the upgrading of treasury officials will be continuously carried out. This program will include officials for financial control.

Improvements in financial control cover methods of internal control as well as the agencies authorized to exercise control functions. Control will also involve the financial balance, programs, and projects so as to avoid excessive costs.

The utilization of funds from profit-making state enterprises in programs, projects and other entities involved in development will be regulated more efficiently. For the time being, these funds can be used for their own reinvestment programs.

From the institutional point of view, control of financial matters and budget allocation will be carried out by the Directorate of Financial Control/State Accounting Service and the State Comptrolling Body. They are directly accountable to Parliament.

12. Improvement in Management and the Need for Capable Personnel

The success of plan implementation also depends on improvements in the management of development programs and projects and the availability of the required skilled personnel, including manpower for management. Improvements in personnel will include improvement in structure and working methods which can be carried out through the formation of O and M units in each department or the implementing unit of the programs and projects. It will also include the upgrading of personnel through training and on special matters, through the obtaining of advice concerning management from competent institutions.

Management schools will be established and the manager himself will be upgraded to improve plan implementation. Programs for education and training will be synchronized with the priorities of development implementation.

13. Progress Reports, Evaluation and Adjustments

A progress report and implementation evaluation system will be introduced. These will be used as a basis for corrective measures to adjust the Plan or to formulate planning in the following years.

A standard form will be used for compiling progress reports on the programs and projects. In this way, the analysis of projects will be improved. The progress reports will be compiled periodically. Thus the weaknesses of the plan implementation will be known immediately and adjustments can be made. The reports will be submitted to the central planning agency, the financing agency, the relevant departments and to the provincial chiefs. In addition, on-the-spot checks will be carried out of development programs and projects.

The implementation of programs and projects will be evaluated. The results of the evaluation will be used for improvements in the formulation of future annual plans, programs and projects.

Improvements in statistics will also be carried out. The capacity and activities of the Central Bureau of Statistics in carrying out its function through cooperation with all concerned in the national statistical system will be increased.

THE FIRST FIVE-YEAR DEVELOPMENT PLAN

(1969/70 - 1973/74)

Volume 2A

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V. 2
Pt. A

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DEPARTMENT OF INFORMATION
REPUBLIC OF INDONESIA

TABLE OF CONTENTS

V O L U M E 2-A

Presidential Decision No. 319/1968 ix
Five-Year Development Plan:
Contents of Complete Series xiii

Chapter VI: AGRICULTURE AND IRRIGATION 1
A. R I C E 10
1. Production 10
2. High-yield Seed 17
3. Fertilizer and Pesticides 22
4. Agricultural Tools 31
5. Guidance, Education and Research 32
6. Marketing 39
7. Production Incentives 43
8. Credits 46
9. Projects 48
B. SECOND FARM FOOD CROPS AND HORTICULTURE 49
1. C o r n 51
2. Groundnuts and Beans 54
3. Horticulture (Fruits & Vegetables) 56
4. Root Crops 57

5. Projects 59

C. ESTATES 63

1. Rubber 68
2. Oil Palm 75
3. Tea 79
4. Sugar 81
5. Coffee 86
6. Tobacco 88
7. Copra 90
8. Cacao 92
9. Pepper 93
10. Cloves 94
11. Nutmeg 95
12. Cassia Vera and Cinnamon 96
13. Cotton 96
14. Projects 97

D. FISHERY 98

E. FORESTRY 105

F. ANIMAL HUSBANDRY 114

G. IRRIGATION 121

1. The Program for the Conservation of Soil and Water 125
2. The program for the Rehabilitation and Control of Rivers 127
3. The Irrigation Rehabilitation Program 128
4. The Irrigation Expansion Program 129
5. Other Irrigation Development Programs 131
    - 5.1 The Tidal Drainage Project 132
    - 5.2 The Multipurpose Project of Kali Brantas 133
    - 5.3 The Project on the Reclamation of Swamp Areas 134

5.4 The Project for the Survey and Planning of Land Reclamation of River Areas 134
5.5 The Project for Land Reclamation on the River Areas of Bengawan Solo, Tjitanduj and Luwu 135
5.6 The Project for the Rehabilitation of the Condition of Lakes 135
5.7 The Project for the Rehabilitation and the Control of Natural Disasters 135
5.8 The Dredging and Dredger Rehabilitation Project 136
5.9 The Topographical Measurement and Irrigation Planning Project 136
5.10 The Flood Control Project for Greater Djakarta 136

LIST OF TABLES

VI-1 : Five-Year Production Average of Main Agricultural Commodities 2
VI-A-1 : Average Annual Increase of Rice Production and Harvested Area 11
VI-A-2 : Rice Production Targets 13
VI-A-3 : Estimated Harvested Paddy Area 14
VI-A-4 : Harvested Area of Paddy Field with Intensification 16
VI-A-5 : Influence of Intensification Area Expansion on Average per Hectare Yield of Rice 17
VI-A-6 : Production of PB-5 and PB-8 Seeds for Intensification Program of Rice Production 21
VI-A-7 : Fertilizer Needed for the Implementation of Rice Production Intensification 23

VI-A-8 : Estimated Need for Fertilizer of All Agricultural Sectors 25
VI-A-9 : Estimated Need for Insecticides of All Agricultural Sectors 28
VI-A-10 : Estimated Increases of Spraying Equipment for the Agricultural Sector 29
VI-A-11 : Increase of Capacity of Paddy Mills and Hullers 42
VI-B-1 : Average Annual Growth Rates of Production and Harvested Area of Second Farm Food Crops 50
VI-B-2 : Production and Harvested Area of Corn 53
VI-B-3 : Production and Harvested Area of Groundnuts and Beans 55
VI-B-4 : Production and Harvested Area of Fruits and Vegetables 57
VI-B-5 : Production and Harvested Area of Root Crops 59
VI-B-6 : Estimates of Fertilizer Needs for Second Farm Food Crops and Horticulture 61
VI-B-7 : Estimates of Insecticides and Sprayer Needs for Second Farm Food Crops and Horticulture 61
VI-C-1 : Average Annual Production of Principal Estate and Smallholder Products 64
VI-C-2 : Average Yield per Hectare of Principal Estate and Smallholder Products 65
VI-C-3 : Exports of Rubber 69
VI-C-4 : Program for Replanting, Conversion and Extensification of State-owned Estates 71
VI-C-5 : Productive Area, Production and Average Production per Hectare of State-owned Rubber Estates 72
VI-C-6 : Average Annual Production of Palm Oil 76
VI-C-7 : Area of Replanting, Extensification and Conversion of State-owned Oil Palm Estates 77
VI-C-8 : Palm Oil Production of State-owned Estates 78
VI-C-9 : Production of Palm Oil and Palm Kernels 79
VI-C-10 : Average Annual Production of Estate and Smallholder Tea 80

VI-C-11 : Production of Tea 82
VI-C-12 : Average Yields of Sugar per Hectare 82
VI-C-13 : Sugar Production 85
VI-C-14 : Coffee Production of State-owned Estates 88
VI-C-15 : Tobacco Production of State-owned Estates 90
VI-C-16 : Copra Production of State-owned Estates 92
VI-C-17 : Cacao Production of State-owned Estates 93
VI-D-1 : Average Annual Fish Production 98
VI-D-2 : Total of Fishing Boats in Indonesia 99
VI-D-3 : Fish Production 100
VI-E-1 : Forest Area in Indonesia 105
VI-E-2 : Timber Export Progress 107
VI-E-3 : Wood Production 109
VI-E-4 : Export of Wood and Other Forest Products 110
VI-F-1 : Number and Kind of Livestock, 1967 114
VI-F-2 : Rate of Production, Consumption and Death 116
VI-F-3 : Estimates of Production of Meat, Eggs and Milk 120
VI-G-1 : Irrigation Projects 126
VI-2 : Financing of the Five-Year Development Plan: Agriculture and Irrigation 137

LIST OF GRAPHS, CHARTS AND MAPS

* Harvested Area and Production of Rice 12
* Harvested Area of Rice with Intensification 15
* Estimated Needs of Fertilizer for the Whole Agricultural Sector 24
* Production of Corn, Beans, Vegetables and Fruits, and Edible Roots 62
* Map : Improvement of Fishery Harbors 103
* Map : Increase of Production and Processing of Wood Products and Timber, and Development of Wood Products 115
* Map : Irrigation Projects 140

VI-B-8 : Estimated Need for [illegible] [illegible]
VI-B-9 : Estimated Need for [illegible] of All Agricultural Sectors
VI-B-10 : Estimated Increase of Spraying Equipment [illegible]
VI-B-11 : [illegible]
VI-B-1 : Average Annual Growth Rates of Production and Harvested Area of Second Rate Food Crops
VI-B-2 : Production and Harvested Area of Corn
VI-B-3 : Production and Harvested Area of Groundnuts
VI-B-4 : Production and Harvested Area of Fruits and Vegetables
VI-B-5 : [illegible] of [illegible] Crops
VI-B-6 : Estimation of Fertilizer Needs for [illegible]
VI-B-7 : Estimation of [illegible] Needs for Second Rate Food Crops [illegible]
VI-C-1 : Average Annual Production [illegible]
VI-C-2 : Average [illegible] Estate and Smallholder Products 63
VI-C-3 : Exports of Rubber
VI-C-4 : Program for Replanting, Conversion and Extension [illegible]
VI-C-5 : [illegible]
VI-C-6 : Average [illegible] State-owned Rubber [illegible]
VI-C-7 : [illegible] Area of Replanting [illegible] 77
VI-C-8 : Palm Oil Production of State-owned Estates
VI-C-9 : [illegible]
VI-C-10 : Average [illegible] Smallholder Tea

PRESIDENTIAL DECISION No. 319
OF THE YEAR 1968
CONCERNING
THE FIVE-YEAR DEVELOPMENT PLAN

THE PRESIDENT OF THE REPUBLIC OF INDONESIA

Considering :

1. that it is the aim of struggle of the New Order to raise the standard of living of the People of Indonesia, which aim can only be achieved by carrying out development by stages and according to plan;
2. that the results which have been achieved under the program of political and economic stabilization, have at present become a basis for the implementation of development which is strong enough;
3. that based on MPRS Decree No. XLI/MPRS/1968, the task of composing and implementing the Five-Year Development constitutes one of the duties of the Development Cabinet;

4. that the Government has, at present, succeeded in composing the Five-Year Development Plan 1969-1973, which will become a basis and guide for the Government in carrying out above-mentioned MPRS Decree from year to year;
5. that based on above-mentioned considerations, it is deemed necessary to issue a Presidential Decision to authorise the Five-Year Development Plan 1969-1973;

Having in mind : 1. Article 4 (clause 1) of the 1945 Constitution;
2. MPRS Decree No. XLI/MPRS/1968;
3. Presidential Decision No. 183 of the year 1968;

Having heard : The considerations of the National Development Planning Board and deliberations during sessions of Cabinet;

HEREBY DECIDES

To enact : A DECISION OF THE PRESIDENT OF THE REPUBLIC OF INDONESIA CONCERNING THE FIVE-YEAR DEVELOPMENT PLAN 1969-1973:

Article 1

The Five-Year Development Plan as contained in Volume I, II and III of the annex to this Presidential Decision constitutes a basis and guide for the Government for the implementation of the Five-Year Development as has been char-

ged by MPRS.

Article 2

Implementation policies of the Five-Year Development Plan will be molded into Annual Plans which are reflected in State Budget and other policies.

Article 3

The molding into Annual Plans as meant in Article 2 of this Presidential Decision, is carried out while considering possibilities for changes and developments in the situation which necessitate adjustments of the Five-Year Development Plan.

Article 4

This Presidential Decision comes into force on the day of enactment.

Enacted in Djakarta,
On the Thirtieth Day of December 1968.

PRESIDENT
OF THE REPUBLIC OF INDONESIA
(sgd.)
SOEHARTO
General of the TNI

4. that the Government has, at present, succeeded in composing the Five-Year Development Plan 1969-1974, which will become a basis and guide for the Government in carrying out development as [illegible] 1969 [illegible];

5. that based on above-mentioned considerations, it is deemed necessary to issue a Presidential Decision concerning the Five-Year Development Plan [illegible];

Having in mind : 1. Article 4 (clause 1) of the 1945 Constitution;
2. MPRS Decree No. XLI/MPRS/1968;
3. [illegible] year 1968;

Having heard : the considerations of the National Development Planning Board and deliberations during sessions of Cabinet;

D E C I D E S :

To enact : DECISION OF THE PRESIDENT OF THE REPUBLIC OF INDONESIA CONCERNING THE FIVE-YEAR DEVELOPMENT PLAN 1969-1974.

Article 1

The Five-Year Development Plan as contained in Volume I, II and III of the annex to this Presidential Decision constitutes a basis and guide for the Government for the implementation of the Five-Year Development as has been char-

FIVE-YEAR DEVELOPMENT PLAN
1969/70 -- 1973/74

CONTENTS OF COMPLETE SERIES

VOLUME ONE
General

***

Chapter I : Aim, Target and Policy
Chapter II : Financing the Plan
Chapter III : International Balance of Payments
Chapter IV : Regional and Rural Development
Chapter V : Government Administration, Plan Implementation and Annual Operational Plan

VOLUME TWO-A
Plan According To Fields

Chapter VI : Agriculture and Irrigation

VOLUME TWO-B

Chapter VII : Industry, Mining and Electric Power
Chapter VIII: Communications and Tourism

VOLUME TWO-C

Chapter IX : Religion
Chapter X : Education and Manpower
Chapter XI : Health and Family Planning
Chapter XII : Housing and Social Welfare

Chapter XIII: Justice and Information
Chapter XIV : Transmigration and Cooperatives
Chapter XV : Defence and National Security
Chapter XVI : Research and Statistical Development

VOLUME THREE

Specification According To Regions

CHAPTER VI

AGRICULTURE AND IRRIGATION

The agricultural sector is the largest single sector in the Indonesian economy. It contributes about 55 per cent of the nation's total output and provides the livelihood of about 75 per cent of the population. Its dominant position can also be measured through its contribution to the country's foreign exchange earnings. More than 60 per cent of the country's exports originate from the agricultural sector. As the largest sector of the Indonesian economy, the agricultural sector must form the foundation of any development effort.

In the recent past the agricultural sector has not developed satisfactorily. Compared with the 1952-1956 average agricultural production had increased by only about 9 per cent in 1960-1964, while per capita production declined by 9 per cent. Although production of rice has risen, the rate of growth is not high enough to meet the rapidly growing demand, so that Indonesia must still import rice in large quantities. Furthermore, during the period of 1958-1965 estate crop production declined by 2.3 per cent, while smallholders export crop production was practically stagnant.

The development of the major agricultural crops for the period of 1953-1967 can be seen in table VI-1.

Table VI-1

FIVE-YEAR PRODUCTION AVERAGE OF MAIN AGRICULTURAL COMMODITIES 1953 -- 1967

((in million tons)

	1953-1957	1958-1962	1963-1967
Foodstuffs :			
Rice	7.57	8.43	8.73
Corn	2.07	2.54	2.92
Cassava	9.42	11.58	12.10
Sweet Potatoes	2.30	2.96	2.84
Soybeans	0.35	0.42	0.38
Peanuts	0.22	0.25	0.26
Marine	0.40	0.45	0.65
Fisheries :			
Inland	0.22	0.30	0.44
Export Products :			
Estates			
Rubber	0.278	0.228	0.221
Palm Oil	0.164	0.146	0.159
Tea	0.039	0.046	0.041
Sugar	0.621	0.593	0.661
Smallholders			
Rubber	0.476	0.457	0.512
Tea	0.024	0.033	0.043
Coffee	0.047	0.077	0.106

As a result of this unsatisfactory development coupled with the rapid growth of the population, employment opportunities in the agricultural sector declined causing unemployment with all its adverse social and economic consequences.

There are many factors which caused the unsatisfactory development. The deterioration of the infrastructure and communication system had a negative effect on the development of the agricultural sector. Another factor was the lack of sufficient funds for the development of smallholders as well as for the estate sector. In addition, lack of managerial and commercial skills and lack of new investment have limited the development of the sector, especially in estate sector.

Furthermore, government regulations in the past had limited and discouraged the activities of the private sector. Insufficient funds were made available for research and extension, so that in these fields Indonesia is far behind the other countries.

The present Five-Year Development Plan for the agricultural sector aims at increasing food production, especially rice, increasing the production and diversification of export crops, and enlarging employment opportunities. With increased productivity the agricultural sector will form an expanding market for the output of other sector, especially the industrial sector, which will increase the possibilities of accumulating capital to finance the development of other sectors.

Production of food will be increased at a rate that will permit within the next 5 years the elimination of rice imports. A supplementary aim is to improve the nutritional value of the consumption of the average Indonesian through increasing the production of foodstuffs which contain animal as well as plant protein, especially fish, nuts and beans. The positive effect of achieving the above objectives is that Indonesia will not have to import rice, which means that scarce foreign exchange can be used to import the capital goods and raw materials needed for the development of other sectors, especially the industrial sector. Moreover, increasing the production of food will result in raising the income of the food producers. This will improve the standard of living of the farmers who for such a long time have lived in poverty and misery.

The objective of raising the production of agricultural export crops is to increase foreign exchange earnings from this sector. Diversification of export crops will reduce the risk of a decline in foreign exchange earnings due to a fall in price of one of the crops. Improvement of the quality of the export crops through proper control of standardization and grading of those crops will also increase foreign exchange earnings.

The objective of enlarging employment opportunities in the agricultural sector is to raise the income and productivity of the farm sector through reduction in the size of the under-employed group. The latter group reduces the contribution of the agricultural sector since it diminishes the supply of food to the other sectors.

To assure the achievement of the above objectives, supporting programs are planned in other sectors, especially in the industrial sector.

To assist and to assure the agricultural sector achieve those objectives development in the other sectors will be geared toward the same objectives. In the industrial sector priority will be given to the growth of output of products needed by the agricultural sector. The fertilizer, insecticides and agricultural equipment industries will be expanded and developed. In addition, production of consumption goods needed by the farmers will be intensified and expanded. The availability of these commodities at the farm level will form an incentive for the farmers to raise their output. Moreover, through increasing the domestic production of these consumption goods, foreign exchange will be saved.

Development of the infrastructure and communication system has the objective of supporting agricultural development. Improvements in these sectors will enlarge the markets of agricultural products and permit regional differences in prices to diminish. The rehabilitation and development of infrastructure will not be limited to government roads, but it will include all roads which relate producing centers in the rural areas with consumers' centers or collection points for export products such as harbors and cities. Improvement in the communication system will make possible the use of mass media for increasing the efficiency of extension and the availability of information on price development, so that farmers will be better informed on the opportunities confronting them.

The steps which will be taken to achieve the above objectives are based on efforts for increasing productivities of the factors of production. In the food sector, rehabilitation, extension and proper maintenance of the irrigation system will receive top priority. Water is an input of utmost importance for most agricultural products, especially rice. To maintain the efficiency of the irrigation systems it is planned also to intensify erosion control. The supply and development of high-yield seeds will be intensified. Research to develop new high-yield varieties will be continued. Adequate supply of fertilizer and pesticides at the right place and at the right time and at prices which will provide incentives to the farmers to use them, are necessary conditions to increase agricultural production. Extension services will be improved and expanded. Extension activities will emphasize improved methods of cultivation, uses of new inputs, and expected revenues from using new technology. The infrastructure, especially the transportation and communication system, will be improved to ensure a smooth flow of inputs to producing centers and of outputs to consuming centers.

In addition to plans to improve the physical infrastructure, steps will also be taken to improve the institutional infrastructure. In the rice sector, government price policy will be directed toward ensuring the farmer reasonable prices through direct government purchases. The marketing of agricultural output and inputs will be improved through the improvement of the infrastructure and through expansion and development of storage and processing facilities. Through improvements in the efficiency of the marketing organization the farmers will receive a higher proportion of the retail price and price differences between regions will be reduced. In addition, all government regulations which have caused unnecessary cost and which restricted the performance of the storage and processing function will be withdrawn. Furthermore, steps will be taken to solve the land reform and land use problems, ensuring the sharecropper a fair proportion of the crop.

Agricultural education is an important element in every effort to develop the agricultural sector. An educational system will be developed directed to those who do not have a direct relation with agriculture, to those who serve the farmers and to the farmers and their families. The objective of the system for the first group is to develop awareness of the importance of the role of agriculture in economic development, while for the second group is to improve their skill in performing their functions. For the farmers a system will be developed to improve their ability to make correct decisions that will increase their productivity.

In the financial sector, expanded credit facilities with more adequate funds will be provided. Because of the small size of the farm operation and the marketable surplus, a large proportion of the farmers need credit for their production efforts. The use of fertilizer and insecticides will increase their cash expenditures. Therefore it is necessary to expand and increase the credit facilities available to them. In addition, government financial sources will be used increasingly to support the program of expanded food production while the flow of these funds to the sector will be made smoother.

The past deterioration of exports was caused mainly by a lack of investment in replanting and new planting. As a result, the age composition of the trees is not properly balanced, which means that the proportion of old and non-productive trees is very high. As a consequence the yields per hectare declined, increasing the cost per unit which is high already because of the low level of efficiency on the estates. High unit costs reduce the possibility of earning a reasonable profit. In such financial conditions replanting, fertilization, and other intensification programs could not be accomplished. Moreover, frequently the financial conditions of the estates could not justify their credit requests.

In the past research activities had been neglected, so that techniques used at the present time are backward if compared with those being used in other countries. Moreover there are no extension workers available to the smallholders. As known, information about new technology in the form of new seeds and other new inputs, about new methods of cultivation and harvesting and development of prices will enable the smallholders to increase their productivity.

To solve the above problems an attempt will be made to replant the over-aged trees with more productive varieties, to fertilise more intensively, and to use more efficient methods of processing the crops. The problem of credit will be solved through supplying medium-term credit with reasonable interest rates. Funds will be made available through the development budget, foreign aid, and existing credit institutions. Priority will be given to the more efficient rubber, palm oil and tea estates. This choice is made with the objectives of financing quick yielding projects.

Extension services will be expanded and intensified. Rehabilitation and further development of the processing industries will be accelerated and quick-yielding projects will be given high priority.

Production of fish has shown an increase. However, the output is still far below the potential. The technology used by the fishing industry is backward. The equipment used by the fishermen is old and in bad condition. Moreover storage and distribution facilities are limited. Exports of shrimp and tuna. which have a good market abroad, are limited because of a lack of capital and experience in the foreign markets.

To solve the above problems, research will be conducted to increase knowledge of the location of fishing areas, fish sources (nests), seasonal migration of fish, and fish density. Furthermore, the needed infrastructure will be improved and developed. Steps will also be taken to provide adequate incentives to attract foreign as well as domestic capital to participate more actively in the fishing industry.

In the inland fishery industry, fish seedlings will be supplied in larger quantities. Efforts will also be made to prevent the poisoning of fish in irrigated rice fields, ponds, lakes, and other natural waters. Furthermore, extension services to fish producers will be promoted, especially for improving the rearing system.

In the field of forestry, utilization of forests is still far below the potential capacity. This had caused relatively low production and export of forest products compared with other countries which have tropical forests similar to Indonesia s. The low utilization of forest potential has been due mainly to a lack of skills and experience in this field. Therefore, domestic and foreign investment will be encouraged, not only for exporting logs but also for developing processing industries.

In animal husbandry steps will be taken to increase the production of meat, eggs, and milk. The objective is not only to increase domestic consumption of these food items but also to increase foreign exchange earnings through export of cattle and other related livestock products.

For the above objectives of agricultural development which have top priority in the Five-Year Development Plan, it is estimated that Rp.319 billion is needed from the development budget during the next 5 years and Rp.35.1 billion for 1969/70. From other sources of finance it is estimated that Rp.76 billion is needed for the five-year period, and Rp.8 billion for 1969/70.

A. RICE

Rice constitutes the Indonesian's most important foodgrain in its contribution to total calories consumed and to his wage and salary structure. Besides, the larger part of the Indonesian agricultural population participates in rice production. Therefore, every movement of the price of rice will influence the welfare of the major part of the Indonesian nation.

1. Production

In the past, rice production could not keep up with population growth. In the last fifteen years (1953 - 1967) rice production recorded an annual average increase of only 1.5 per cent compared to a population increase of more than 2 per cent. To keep per capita consumption level, the total of rice imported has been increased so that, every year, more than 100 million dollars in foreign exchange has been used for rice import. If development is to take place, this can no longer be continued, and all efforts must be directed toward increasing rice production in order that hard-earned foreign exchange can be utilized for more productive purposes. In addition, an increase in rice production will raise the per capita income of farmers, and this will form a potential source of funds for the mobilization of savings, the extension of employment, and expansion of the market for the goods produced by other sectors, particularly of industry.

Rice production and the harvested area in Indonesia are given in Table VI-A-1 as follows :

Table VI-A-1

AVERAGE ANNUAL INCREASE OF RICE PRODUCTION AND HARVESTED AREA

1953 - 1967

(percentage)

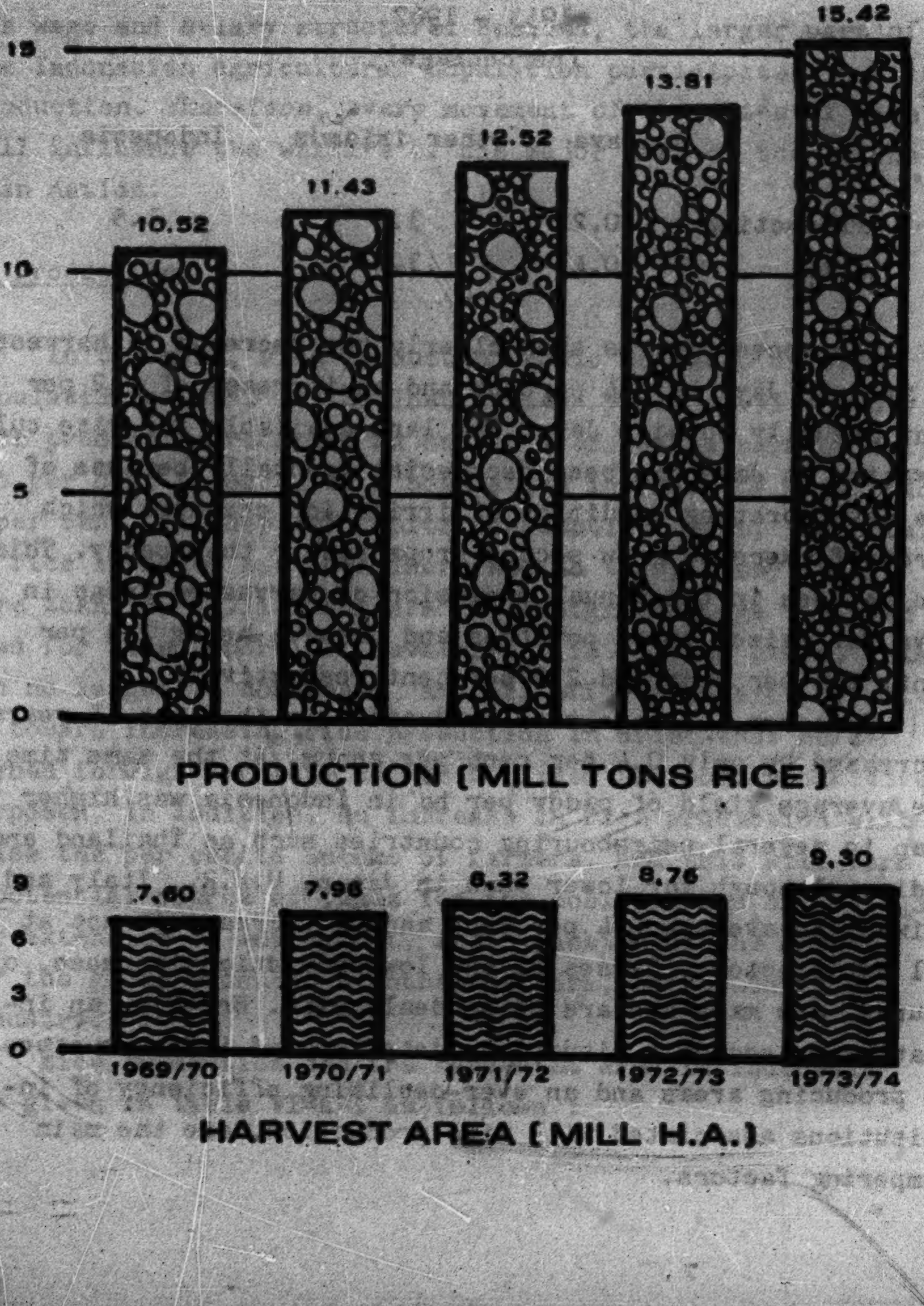
	Java	Other islands	Indonesia
Production	0.2	3.3	1.5
Area	-0.4	3.2	1.1

The above figures show clearly the decrease in harvested area in Java by 0.4 percent and an increase of 3.2 per cent annually outside Java. The land available for rice cultivation in Java has been decreasing gradually because of the deteriorating condition of irrigation channels which forces farmers to grow second crops rather than paddy. This can be seen in the annual expansion of harvested areas in Java for maize, sweet potatoes and cassava being 2.3 per cent, 2.6 per cent and 2.7 per cent respectively.

Moreover, average rice production in the last 15 years increased by only 0.4 per cent per annum. At the same time, the average yield of paddy per ha in Indonesia was higher than in several neighbouring countries such as Thailand and India, although far lower than in Japan, U.A.R., Italy and Taiwan. An average 0.4 per cent annual increase is not at all satisfactory. Causes of the low production increase, of course, are many and are being dealt with. Briefly, an inflationary economic situation, deteriorated infrastructure in producing areas and an ever-declining efficiency of institutions associated with rice production, are the main hampering factors.

HARVESTED AREA & PRODUCTION OF RICE

1969/70 -- 1973/74



Measures to be taken in the coming five years aim at the raising of rice production to rach 15.4 million tons in 1973. This target will be achieved through an annual increase of production as shown in Table VI-A-2.

Table VI-A-2

RICE PRODUCTION TARGETS
1969/1970 -- 1973/1974

Year	Production total (million ton)	Percentage increase
1969/70	10.52	7.34
1970/71	11.43	8.65
1971/72	12.52	9.50
1972/73	13.81	10.30
1973/74	15.42	11.60

These proposed increases are high compared to the years before, but certainly not beyond reach. This optimistic view is based on the availability of new technology which makes a very rapid increase of rice production possible.

This new technology includes high-yield seeds very responsive to fertilizer. Further, since the introduction of the "Bimas" program in 1963 rice growers have gradually become aware of the benefit of the use of fertilizer and insecticides, while the condition of the infrastructure has improved over what it was a few years ago. Based on these factors, the above targets are not beyond reach. The achievement of the targets must be ensured by a number of important measures. Below, the measures to be taken to secure successful achievement of the targets will be dealt with in detail.

First of all per hectare yield will be raised through intensification efforts along with harvest area expansion. The latter will require improvement and expansion of irrigation systems.

During the coming five years, existing irrigation covering one million hectares will be improved while expansion will comprise 480,000 hectares. According to this plan the paddy area harvested will increase by 1.7 million hectares in the five years. The estimated paddy area harvested each year can be seen in Table VI-A-3.

Table VI-A-3

ESTIMATED HARVESTED PADDY AREA 1969/70 -- 1973/74

Year	Harvested Area (million ha)	Percentage increase
1969/70	7.60	1.33
1970/71	7.96	4.74
1971/72	8.32	4.52
1972/73	8.76	5.29
1973/74	9.30	6.16

Intensification efforts will include the expansion of area cultivated in an organized way and the use of new high-yield seeds, at the moment known as the new "Bimas" program. The intensification plan in the coming five years is as shown in Table VI-A-4.

HARVESTED AREA OF PADDY FIELD WITH INTENSIFICATION

1969/70 -- 1973/74

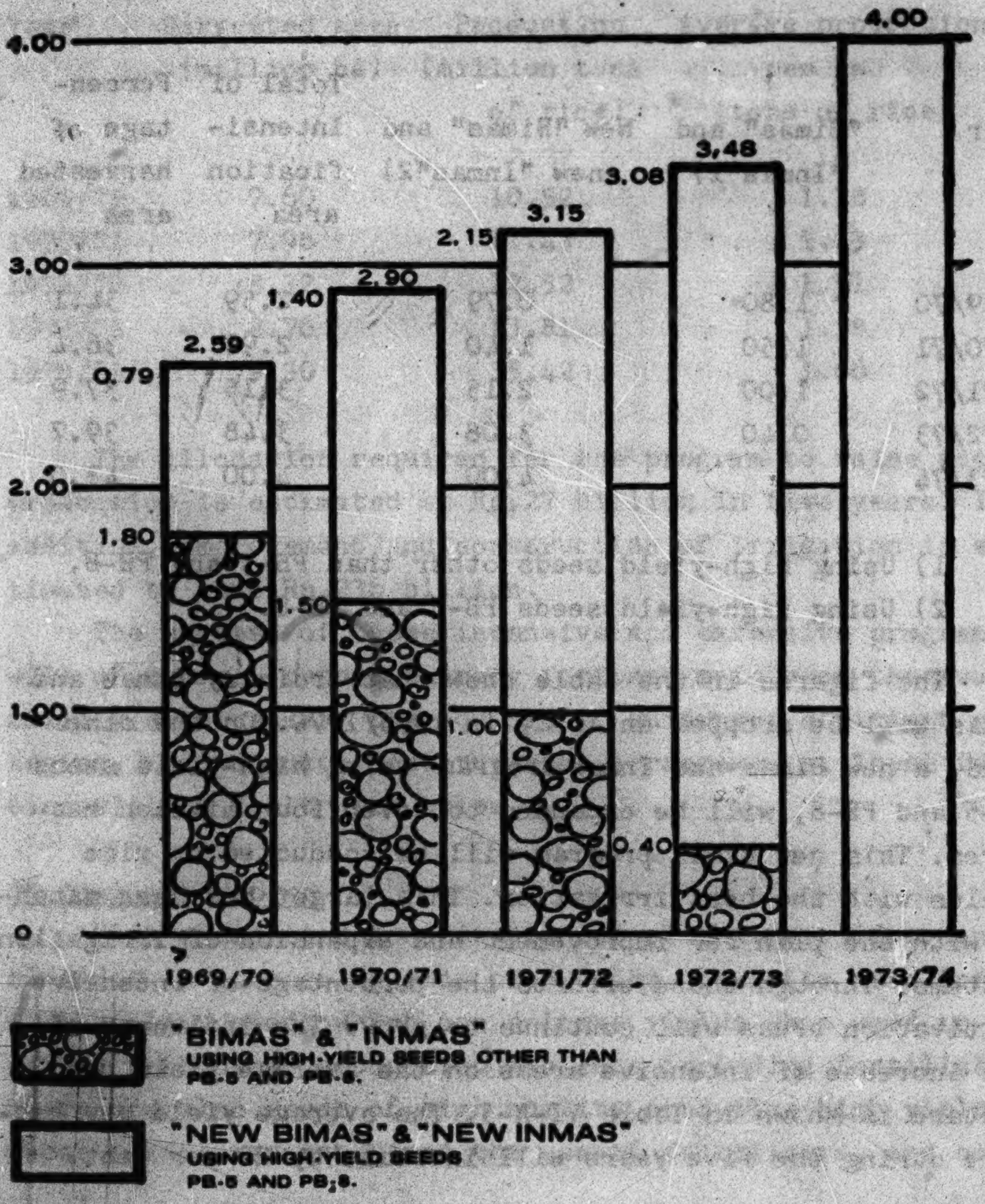


Table VI-A-4

HARVESTED AREA OF PADDY FIELD WITH INTENSIFICATION

1969/70 -- 1973/74

Year	"Bimas" and "Inmas"1)	New "Bimas" and new "Inmas"2)	Total of Intensification area	Percentage of harvested area
1969/70	1.80	0.79	2.59	34.1
1970/71	1.50	1.40	2.90	36.4
1971/72	1.00	2.15	3.15	37.9
1972/73	0.40	3.08	3.48	39.7
1973/74	-	4.00	4.00	43.0

1) Using high-yield seeds other than PB-5 and PB-8.

2) Using high-yield seeds PB-5 and PB-8.

The figures in the table show that ordinary Bimas and Inmas will be dropped entirely in 1973/1974. On the other hand, a new Bimas and Inmas program using high-yield seeds PB-5 and PB-8, will be expanded to cover four million hectares. This new Bimas program will be conducted on rice fields with the best irrigation. This target has been matched with the plan for improvement and expansion of irrigation systems. Through those efforts the percentage of intensive cultivation areas will continue to grow. The influence of the increase of intensive areas on the average yield per hectare is shown in Table VI-A-5. The average yield per hectare during the five years will increase by 20 per cent.

Table VI-A-5

INFLUENCE OF INTENSIFICATION AREA EXPANSION ON AVERAGE PER-HA YIELD OF RICE 1969/70 -- 1973/74

Year	Harvested area (million ha)	Production (million tons of rice)	Average production per ha (tons of rice)
1969/70	7.60	10.52	1.38
1970/71	7.96	11.43	1.43
1971/72	8.32	12.52	1.51
1972/73	8.76	13.81	1.58
1973/74	9.30	15.42	1.66

The allocation required for the program to raise rice production is estimated at Rp.27 billion in five years. In addition, improvement and construction of irrigation is estimated to cost Rp.236 billion.

The success of these intensive and extensive programs will of course, depend on many factors, mainly on the availability of necessary prerequisites, guidance, efficient marketing, and adequate institutional arrangements. These factors will be dealt with below.

2. High-yield Seed

High-yield seed constitutes one of the most important elements in increasing rice production. There is need for high quality seeds which can enlarge yields when used together with other production elements including fertilizers. There are also seeds of high quality producing high yields whose plants can not stand the use of fertilizers, and consequently give lower average production. At present, there have been found new high-yield seeds which meet these requirements, namely Peta Baru 5 and Peta Baru 8 (PB-5 and PB-8, or IR-5 and IR-8). These new seeds are the result of research conducted by the International Rice Research Institute which has used quality seeds from Indonesia, among others. The use of PB-5 and PB-8 seeds has already been introduced in Indonesia. The average production of these seeds cultivated in experimental fields, is around 3-4 ton per hectare which means an increase of 1.75 - 2.75 tons of rice per hectare compared to the average yield of other seeds.

If these high-yield seeds can be produced in sufficient quantity and distributed rapidly to the growing areas, rice production will increase rapidly. Of course, besides the production and supply of seed in sufficient quantities, other production infrastructure is also required in adequate quantities.

The success of the expanded use of high-yield seeds in a short time, depends on various factors, among others:

(1) guidance on their use,
(2) production of the seeds,
(3) their distribution to rice-growing regions.

Information and guidance are very important, first of all because of several characteristics in which these new seeds differ from other seeds so far widely used. The paddy plants of these new varieties are rather short and their grain-stems are wrapped in leaf-ribs. These two characteristics make the traditional harvesting with knives difficult. Harvesting requires the use of sickles. Furthermore, the paddy grains of these new varieties fall off easily. Therefore, harvesting must be followed immediately by hulling in order to prevent losses during transportation. Another difference is the sensitiveness of the plants of these new high-yield seeds to attacks by insects, necessitating more complete precautions to combat insect attacks. Finally, the rice produced by these new seeds differs in flavor though slightly, from that of other seeds.

These differences must be taken into consideration because they might make farmers reluctant to use the new high-yield seeds. On the other hand, there is a great difference in the total of their production from that of other seeds. This difference in production forms enough of an incentive to persuade farmers to use the new seeds. Nevertheless, to achieve a successful expansion of their use, the efficiency of their distribution must be improved. To achieve this it is planned to upgrade guidance through the intensification of education and training and an increase in extension personnel.

The production of new high-yield seeds involves the problem of how to maintain the purity of the seeds during their multiplication. Experience in the past has indicated that the purity of the seeds that are widely distributed can not be maintained beyond a few seasons because of their mixture with other seeds. This involves a degeneration of seed quality. Such a situation must be prevented, and to this end precautionary steps must be taken.

At present there are 280 seed-gardens with an overall area of 2,195 hectares. These gardens are to provide seedlings to seed-producing farmers and other paddy growers. But, because of insufficient care and a shortage of funds and of other facilities needed, the purity of the seedlings produced and distributed by the seed-gardens can hardly be maintained. Consequently, farmers often receive impure seeds which do not produce the anticipated yield.

To maintain the purity of the high-yield seeds, various measures will be taken. Seed-gardens will be improved and developed so that they become really efficient production units producing high-yield seeds of perfect purity and at a cost as low as possible. For this purpose, it is planned to obtain sufficient funds and facilities including drying units, and also to employ skilled management.

In addition, the development of private seed-gardens will be encouraged, and to secure the purity of the stock distributed, a system of certifying seeds will be carried out. In this way, farmers will be protected from the purchase of impure high-yield seeds.

In addition to the improvement and expansion of existing seed-gardens and encouragement of private seed-garden development, seed production on a large scale will be carried out. Extensive seed-gardens will be opened, particularly in large producing areas in several parts of Java, Sumatera, Sulawesi and other regions.

In 1968 a seed-garden, called Sang Hyang Sri was started in Sukamandi in West Java. Seed-gardens such as this are planned in other areas. As they will be extensive ones, mechanization will also be introduced. It is intended that these large seed-gardens will assure the supply of high-yield seeds of sufficient purity for an area of more than two million hectares. This way of production will better guarantee purity because control can be carried out more effectively. Further, to facilitate quick distribution, efforts will be made to develop an effective distribution system between seed production centers and seed using areas.

In the coming five years the need for high-yield seeds, PB-5 and PB-8 will increase rapidly. It is planned to expand the area planted with PB-5 and PB-8 seeds from the present less than one million hectares to about four million hectares in 1973. According to estimates, one hectare needs 30 kg PB-5 and PB-8 seeds. To meet the need for these seeds production targets are planned as shown in Table VI-A-6.

Table VI-A-6

PRODUCTION OF PB-5 AND PB-8 SEEDS FOR INTENSIFICATION PROGRAM OF RICE PRODUCTION

1968/69 -- 1973/74

Year	Production Total (thousand tons)
1968/69	23.70
1969/70	42.00
1970/71	64.50
1971/72	92.40
1972/73	120.00
1973/74	144.00

Note : The production of PB-5 and PB-8 seeds in 1969/1970 is needed for the production of paddy harvested in 1970/1971 as will be the case with other years.

In accordance with the above policy, a movement for seed improvement will be started in 1969/1970. One of its objectives is to encourage and improve seed testing and re-purify high-yield stock already distributed widely. Another objective is to intensify the provision of guidance concerning the use and management of quality seeds. Further, a bill on the matter of seeds will be prepared. In provinces preparations will be carried out for building seed institutional centers. These various steps, it is hoped, will bring about production incentives and a regular supply of high-yield seeds which farmers can get in a pure condition and at a suitable price.

3. Fertilizer and Insecticides

Fertilizer and insecticides play an important role in the efforts to raise rice production. A specific characteristic of PB-5 and PB-8 seeds is their ability to accept heavy fertilization so that production can be increased rapidly. This means that PB-5 and PB-8 seeds require more fertilizer than other seeds in order that their production will in fact, increase. According to provisional estimates, PB-5 and PB-8 seeds require fertilizer in quantities as follows : 200 kg urea plus 100 kg TSP for each hectare. Other seeds require 100 kg urea plus 50 kg TSP per hectare.

These are only provisional formulas. Moreover, they are based on average calculations on a national scale while each region needs fertilizer in quantities suited to local conditions. Research and experiments, therefore, must be continued. Based on these formulas, and the rice production targets for the years 1969/1970 to 1973/1974, in order to yield the production expected the need for fertilizer will develop as shown in Table VI-A-7.

These quantities of fertilizer are required for the increase of rice production only. In addition, other agricultural sectors also need fertilizer among them plantations, horticulture, etc. In order to prevent the use of fertilizer assigned for the rice production increase being used for other agricultural production, the supply of fertilizer must exceed the needs of the rice farmer. Therefore, estimates of the needs of agricultural activities outside rice cultivation for fertilizer have been made and can be seen in Table VI-A-8.

Table VI-A-7

FERTILIZER NEEDED FOR THE IMPLEMENTATION OF RICE PRODUCTION INTENSIFICATION
1968/69 -- 1973/74

Year	Urea (thousand tons)	T.S.P. (thousand tons)	Value (millions dollars)
1968/69	338	169	38.70
1969/70	430	215	49.45
1970/71	530	265	60.95
1971/72	676	328	77.58
1972/73	800	400	92.00
1973/74	960	480	111.40

Note : Fertilizer in 1969/70 is needed for the production of paddy to be harvested in 1970/71 as is the case with other years.

ESTIMATED NEED FOR FERTILIZER OF ALL AGRICULTURAL SECTORS IN MILLION DOLLAR

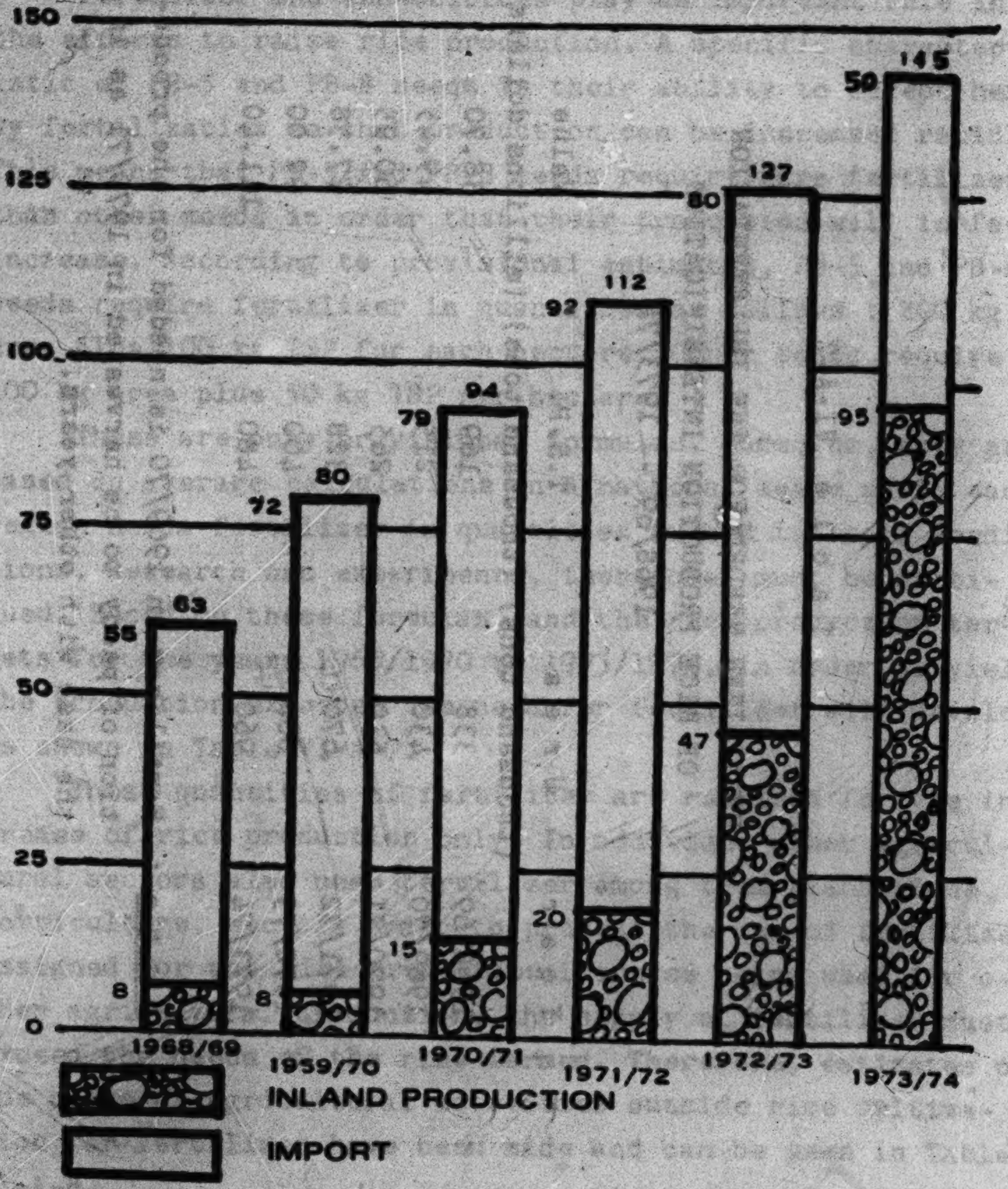


Table VI-A-8

ESTIMATED NEED FOR FERTILIZER OF ALL AGRICULTURAL SECTORS
1969/70 -- 1973/74
(thousand ton)

Year	Paddy		Second crops Vegetables etc.			Estates			Total		
	N	P	N	P	K	N	P	K	N	P	K
1968/69	156	78	40	4	4	49	40	9	245	122	13
1969/70	198	99	44	5	5	78	46	9	320	150	14
1970/71	244	122	48	6	6	88	47	9	380	175	15
1971/72	311	151	53	7	7	86	51	11	450	209	18
1972/73	368	184	54	8	8	79	53	11	501	245	19
1973/74	442	221	57	9	9	72	54	11	571	284	20

N o t e : 1) The fertilizer needs of the Private Estates Sector is estimated at 75 per cent of the need of the State Estates Sector.

The increasing need for fertilizer will be met by both domestic production and imports. At present, the capacity of domestic production is just 100,000 tons of urea or 46,000 tons of nitrogen per year. By an increase in the capacity of factories now under construction and the establishment of new factories, it is hoped to raise domestic production rapidly as shown in Table VI-A-8.

In the case of fertilizer, distribution to the regions is a major problem. It is very important that farmers receive fertilizer of the right kind, at the right time, and at the most suitable price. Experience in the past was not satisfactory at all. Very often the fertilizer that was needed came too late, sometimes it was of unsuitable kind and at high prices. The latter was caused by, among others, the then prevailing marketing systems and high marketing costs.

Irregular marketing also compelled farmers to travel long distances in order to obtain fertilizer and to buy in large quantities. Fertilizer was often damaged due to storing and transportation problems. That situation not only caused a loss of foreign exchange but also the failure of efforts to increase food production. Therefore, it must be prevented from occurring in the future.

To secure an adequate supply and effective use of fertilizers, careful planning will be carried out within the framework of the annual plans. Fertilizer imports are accorded high priority in the annual import programs.

Imports will be implemented at the right time, taking into account the time it takes for distribution to the regions so that the fertilizer will reach farmers at the time it is needed. In this connection improvement of transport infrastructure will play a significant role.

Besides, the availability of widely-distributed storehouses and depots and the extension of marketing to villa-

2

ges will enable farmers to buy fertilizer easily. Most farmers do not possess large pieces of land so that they do not need much fertilizer. Moreover, most of them do not have the money to buy more than they really need for one season. Therefore, the marketing of fertilizer must be very widely distributed so as to make it possible for farmers to buy fertilizer and other production requirements. In this connection, the possibility of providing fertilizer and other production requirements, including seeds and insecticide, collectively in a "package", will be studied in order that farmers may obtain all that they need at one time in one place.

Another matter of importance in the distribution of fertilizer and other production requirements is the relation of the fertilizer price to the paddy price. In this context a price policy is to be formulated that will encourage farmers to buy and use fertilizer and private entrepreneurs will be given incentives and encouragement to undertake actively the distribution of fertilizer.

In addition to fertilizer, insecticides also play an important role, especially considering the fact that PB-5 and PB-8 seeds are especially vulnerable to insect attacks. The best preparations are to be made. Insecticides will be made available that are effective, cheap, and of low toxity. Insecticides will not be supplied on the basis of the area of intensification planned every year, but on the average area per year attacked by insects, such as "sudep", "walang sangit", "wereng", etc., which is estimated to be 1.6 million hectares. Insecticide to be supplied in the plan will be enough for about 50 per cent of the total area threatened. As each hectare requires about 4.2 liters of insecticide, the total annual need is approximately 3,360 tons.

In addition, areas attacked by various animals such as mice, wild boar etc., are estimated at about 1.3 million hectares per annum. It is planned to supply rodenticide for about 50 per cent of the area in danger. Each hectare requires about 1.1 kg rodenticide so that the total annual supply will reach 65 tons. It is possible that the danger area will expand. In this case the supply of insecticide and rodenticide must increase too.

At present, insecticides still have to be imported. In the coming five years preparations will be made to facilitate the production of insecticides domestically. In the meantime the import of insecticides will be carefully controlled. They have high priority in annual import programs as is the case with fertilizer. It is estimated that imports in 1969/1970 will amount to 16.60 million dollars. The value of insecticides needed in 1972/1973 will reach 20.10 million dollars. The need for insecticides in the successive years can be seen in Table VI-A-9.

Table VI-A-9

ESTIMATES OF INSECTICIDE NEEDS FOR ALL AGRICULTURAL SECTORS

1968/69 -- 1973/74

(in $ million)

Year	Paddy	Second crops Vegetables, etc.	Estates	Total
1968/69	15.70	2.59	0.80	19.09
1969/70	16.60	2.59	0.62	19.81
1970/71	17.50	2.59	0.65	20.74
1971/72	18.50	2.75	0.63	21.88
1972/73	20.10	2.85	0.68	23.63
1973/74	22.00	2.95	0.70	25.65

Note : Insecticides used in 1969/70 are for the production of paddy harvested in 1970/71, as is the case with other years.

The planning of insecticide use is closely linked with the planning of the supply of spraying equipment. The estimated total needed in 1969/70 for paddy cultivation is 74,000. Increases in spraying equipment requirements for the agricultural sector are shown in Table VI-A-10.

Table VI-A-10

ESTIMATED INCREASES OF SPRAYING EQUIPMENT FOR THE AGRICULTURAL SECTOR

1968/69 - 1973/74

(in thousands)

Year	Paddy	Second Crops, Vegetables etc.	Estates	Total
1968/69	42.00	---	1.88	43.88
1969/70	47.70	30.00	1.63	106.33
1970/71	12.50	45.00	1.61	59.11
1971/72	12.50	4.50	1.56	18.56
1972/73	20.00	3.00	1.57	24.57
1973/74	20.00	3.00	1.60	24.60

The need for spraying equipment does not show an equal increase, year by year, since it is expected that, on the average, the equipment will last for 5 years.

As spraying equipment can be produced domestically it is planned to stop its import, and make full use of domestic production. One of the problems faced by small farmers is the difficulty of buying their own spraying equipment because of its high price. Efforts will be made, therefore, to help groups of farmers and cooperatives or a whole village to buy the equipment needed collectively.

An experiment is being carried out, at the present time, with of insecticide which does not require spraying equipment, that is, insecticide in the form of grains. If this is successful, spraying equipment will no longer be needed but the problem is, that this kind of grain insecticide is very expensive. Another method now being tried is spraying from the air with small planes. In this case, farmers do not need to own spraying equipment individually. In the future, the comparative benefit or result of the use of insecticides with spraying equipment, the use of grain-insecticides and the use of insecticides sprayed from the air will be recorded. Based on results obtained, the most effective method of insect eradication can be determined.

In contrast to fertilizer, insecticides are used to prevent a decrease in production while fertilizer is needed to raise production. The benefit of the use of insecticides, therefore, is not readily seen or felt by some farmers. This interferes with the application of insecticides, the more so due to its high cost. For this reason, the problem of financing will be given full attention. As is the case with fertilizer, farmers will also be provided with credit sufficient for the purchase of insecticides. Further, import and distribution planning will also be given priority attention. In this context, private entrepreneurs will be encouraged to become active also in this field of supply and distribution to farmers.

As insecticides are needed not only for the cultivation of rice but also for the production of estates and for other agricultural crops the planning of import and distribution must also cover the needs of these other sectors. The quantities of insecticide needed by all agricultural sectors, including rice cultivation, estates etc., can be seen in Table

4. Agricultural Tools

To raise the level of production, many agricultural tools are required such as spades, sickles, ploughs, hulling machines, drying equipment, waterpumps, etc., in addition to the spraying equipment explained before. The desire to raise production brings with it an increasing demand for these agricultural tools. If they can not be supplied it will be an obstacle to the increase of food production. Therefore, all efforts will be made to make them available when and where required, at suitable prices and of proper quality.

As a matter of fact, these agricultural tools can be produced domestically but very often imported tools are preferred. For this reason, not only will domestic production be increased but also the quality of the tools produced will be secured. To this end, encouragement and incentives for producers of agricultural tools are necessary.

Among those agricultural tools the greatest demand in the coming years will be for sickles and hulling machines. As is known, the production of PB-5 and PB-8 high-yield seeds can be harvested more easily with sickles than with the knives presently used. It is estimated, therefore, that the demand for sickles will rise steeply and rapidly in the near future. This will also be the case with hulling machines, because paddy produced by PB-5 and PB-8 seeds requires speedy hulling, soon after being harvested.

It is planned to equip seed-gardens with paddy drying units. Large units have a capacity of 1 ton/hour while small units have a capacity of 4 ton/day. Along with the development of seed-gardens the demand for drying units will increase. The larger part of the need will be met by supplying small drying units.

Further, to increase production, particularly in areas suffering from water shortages, water pumps are required for village irrigation units. Management of these water pump units will be left to the community itself. It is likely that, in the next five years, a new supply of about 3,000 water pumping units each of which can irrigate about 40 ha dry rice-fields will have to be added.

One of the characteristics of PB-5 and PB-8 seeds is the easy falling off of their grains. Therefore, they must be transported in the form of grain to prevent loss. Transport of grain in large quantities can be carried out effectively only in bags. Consequently, the demand for bags will rise quickly in the coming years. In this connection, domestic production of bags will be expanded and their quality improved. Shortages in the supply of bags will be met by imports, and must get priority in annual import programs.

Besides these agricultural tools, the increase in rice production in the coming years will necessitate an increased supply of paddy mills and hulling units. This problem will be dealt with in the framework of marketing.

As regards policies and measures to be followed in order to develop industries producing agricultural tools, they can be found in the chapter on industry.

5. Guidance, Education and Research

Guidance, education and research in agriculture play a vital role in the efforts to raise rice production. Guidance is a form of education, namely the education of farmers in order that they may be acquainted with the possibilities open to them to increase production. Another form of education is the training of agricultural technical personnel who will work in the field of giving guidance and other activities related to agriculture.

Further, there is another form of agricultural education of no less importance, namely education of the community in general to extend its understanding of agricultural problems. This also includes school education. Agricultural guidance and education benefit from the results of research. On the other hand, guidance and education provide significant material for agricultural research activities.

Agricultural guidance aims at fostering farmers' conciousness of the need to utilize new methods to raise production. Guides must not only give information on the availability of new methods, but must also encourage farmers to make use of the possibilities and to apply the new methods. For this purpose, farmers need not only know the existing new methods but also understand why these are better, and how to put them into practice. Further, farmers must have the opportunity to test the new methods. This means that the necessary production infrastructure must be provided and made available at the times required. If this can not be managed so that farmers can not try the new methods, guidance will only create frustration.

The possibilities and new methods conveyed to farmers must not only prove to be better technically, but also profitable; in other words, guidance must show that the expenses required are less than output. For this reason, the kind of guidance needed must not only deal with agricultural technical matters but also with the economic problems concerned.

The effectiveness of guidance depends on various factors, among others, on the quality and skill of the guides and their number, also on the guidance program and the means available to put it into practice. In the coming years the quality and skill of extension workers will be raised and their number increased. Guidance programs will be improved from year to year while the necessary means will be provided adequately. It is most important that extension workers are enabled to work in extensive areas and visit as many farmers as possible. To increase mobility some equipment is needed to facilitate guidance, such as audio-visual aids.

In addition, it is planned to establish minimum libraries for farmers at the sub-district level. It is very important that extension workers are able to follow the development of technology related to their function.

Further, guidance by radio will also play an important role, especially since radios are widely spread in rural areas. In this context, groups of farmers will be organized to discuss problems received by radio. As a step preparatory to this guidance by radio, training exercises will be conducted for workers in this field.

To expand the channels of guidance, simple but effective printed material will be published dealing with new possibilities open in the field of agriculture. These publications, of course, must be suited to local conditions. Therefore, agricultural information centers will be organized in the capital as well as in the provinces.

But what is of vital importance, and therefore must be promoted more effectively, is the existence of the closest relations between extension workers and individual farmers as well as groups of farmers. In this connection, the role of village community leaders is of great importance. They can function as effective liaison officers between agricultural personnel in sub-districts and the farmers in their areas.

Intensive guiding activities will enable farmers to know new technology, more productive production infrastructure and more efficient marketing methods. But for the success of all guiding activities it is most important to demonstrate clear evidence of results from the new possibilities. For this purpose, guiding activities must be accompanied soon by the supply of production equipment at the right time and at a price in keeping with the profits which will be realized from production. The mobility of extension workers at village level will be raised by providing sufficient transport means.

The training of agricultural technical personnel is needed not only to increase the number of extension workers but also for other activities related to agriculture, such as agricultural credit activities and also industrial activities producing agricultural tools or processing agricultural products. What is important is to improve job qualifications and skills as well as to know how to use them in order to make the efforts to increase agricultural production successful. Besides improvement and extension of the quality of agricultural education in schools, courses for active working personnel will be developed. This broadening of knowledge is not only important and necessary because of the fact that it is what is needed by the largest number of personnel, but also because of the rapid development of technology which workers must follow closely. One of the examples is the rapid progress of the use of new seeds, fertilizers and insecticides.

At the present time there are about 4,000 agricultural technical staff members scattered throughout Indonesia. During the next five years it is intended to replace more than 40 per cent of the technical workers at the sub-district level with SPMA graduates while the remaining 60 per cent will be upgraded to the level of those graduates. In the meantime the possibility is being studied of producing technical personnel by training S.M.A. graduates in a shorter period. At present there are 16 State SPMA's with 400 graduates annually. The system of employing these graduates will be improved, and their number increased every year. In this case, the payment of these technicians and the availability of funds for their assignment in the regions constitute a problem to be solved.

It is planned that upgrading courses conducted for agricultural personnel at the district level can be finished in 1970 at the latest while courses on paddy production and control will be implemented in 1969 and 1970. Further, existing agricultural teachers will be upgraded and new ones trained. In addition, training in mechanization will be organized for producer - farmers who have started to use agricultural mechanical tools in the broader sense such as tilling equipment, spraying equipment, hulling tools, hullers, water pumps, etc.

Of no less importance is agricultural education for the community in general. Very often there is lack of a clear understanding of the significance of agricultural development for overall development, and of the requirements for success of agricultural development. It is very important to educate the community about the influence of rice price developments on agricultural development activities, about the significance of the improvement of roads and irrigation in rural areas, about the importance of the field of agriculture as a market for industrial products, and of industries supporting agriculture because of the fact that they produce agricultural production equipment and process agricultural products as well. This kind of education will mainly be directed at people in towns.

Further, in the public schools, from primary up to university level, a favourable climate will be created to foster understanding about and appreciation of agricultural activities and the role of farmers in national development. Educational activities will be arranged so as to eliminate, step by step, the existing lack of appreciation of agricultural jobs which are regarded as of lower standard than jobs in other fields. Knowledge about the growth of plants and animals, the role and maintenance of natural resources and the role of agriculture and farmers in national development, are a few of the many matters to be developed in the educational system in order to create a climate which supports agricultural development.

Research in the field of agriculture will be given priority attention. This is necessary because agricultural production depends heavily on technological progress which results from research. Research activities cover various types of experiments. The experience of farmers and the varying methods and production equipment used in different regions, will be studied systematically. Achievements in other countries will also be studied and their probable introduction in Indonesia after making necessary adaptations.

Research will be carried out according to certain objectives. It will be geared to problems faced by farmers in order that they may be solved or alternatives found for their solution. In this case, cooperation between guidance, education and research is essential. "Feedback" from the field of guidance to that of research will produce material needed to direct research. As the problem of agricultural production increase has many facets, research activities very often require cooperation between experts in a variety of fields. Therefore, research activities have technical, economic, and social aspects. An approach that gives attention to these various aspects, will facilitate distribution and acceptance of the results of research.

Considering the great extent of the areas and their varied conditions, the location of research institutions and the determination of each activity must take the existing situation into account. In this case, the role of research must have an adaptive character, a kind of research which can adapt the results of technological development to local conditions in order to produce the hoped-for result.

Although at present, PB-5 and PB-8 high-yield seeds have been found, research on seeds will be continued, particularly on improvement of those high-yield seeds to obtain still better characteristics; among others, to adapt their quality to the taste of consumers, and to strengthen them against diseases. Further, research will be conducted to develop seeds suitable for flood-ebb areas. At the present time, seeds used in those areas give a lower yield compared to average national production.

Besides research on seeds, experiments will also be carried out on fertilization, also on the testing and application of various kinds of insecticides, particularly to eliminate "tenggerek" a disease of rice stalk. These researches and experiments must of course, be adapted to conditions in the regions which differ in topography, climate, soil, etc. These research activities are expected to indicate the "packages" to be made consisting of seed, fertilizer and insecticide, most suitable to a certain area.

Another research project concerns agricultural tools, among others, research on the various kinds of agricultural tools used in several areas and their possibility of being utilized in other areas; also on agricultural tools used in other countries and their possible adaptation. Another problem is research on the improvement of agricultural tools produced domestically.

Besides research in the technical field, research in the economic and social fields will be carried out. Among others, research projects will be developed on the influence of production equipment on the development of production. The result of that research will provide the most important material needed for the formulation of a permanent policy on the balance of prices between production infrastructure and agricultural products. In the same course, marketing research will be intensified. This involves marketing of production infrastructure as well as that of products. It concerns, for example, the distribution of fertilizers. Further, credit and land use planning are matters to be studied.

In order that research activities be successful, these will be planned correctly and provided with sufficient financial support including equipment needed, and proper payment of their implementors.

6. Marketing

Paddy production increases can continue as long as they find a market. If the market declines sharply or if marketing is not satisfactorily conducted, the farmers' interest in increasing production will diminish which consequently, will cause production to go down. For this reason, there must be a regular market and farmers must be convinced that they can sell their produce at all times and at satisfactory prices.

In the past, rice marketing was far from satisfactory. This situation was caused by several factors, among them the worsening condition of the infrastructure, particularly of transport and storing, the decline of processing capacity, and financial difficulties. Furthermore, the complexity of regulations and official decisions added more difficulties to this marketing sector.

Inefficient marketing has a direct effect on the level of production. If the high price in town is not conveyed to farmers, and if producers receive a low price during several seasons, there will be no incentive to raise production. This will also happen if there is only one marketing channel so that farmers face one buyer only.

To secure an increase of paddy production, measures must be taken to develop efficient marketing. These measures affect several fields, among others, transport, storing, processing, financing, etc.

In the field of transport, a transport system will be developed assuring fluent transportation of produce from producing areas to consuming centers and conversely, speedy transportation of production equipment to producing areas. It is of vital importance that production prerequisites reach farmers at the right time and at a suitable price. To this end, priority will be given to roads and transportation. Roads connecting producing areas with consuming centers will get first priority.

To provide rapid transportation of ever-increasing production, transport equipment is required in large numbers. Similarly, the sending of production equipment in large quantities requires an increase in transport vehicles.

The rapid increase of production, furthermore, creates the need for more storing places and storehouses. Efforts will be made to balance storing capacity with production progress. This can be achieved by the rehabilitation of existing storing facilities and the construction of new storehouses to minimize losses. Production increases will also change the location of storehouses. There will be a greater need for storehouses in producing areas than in consuming centers. Help will be given to private enterpreneurs, particularly rice millers and hullers, to increase storing capacity.

One of the most important functions of marketing is the processing of produce. In this case, paddy processing capacity will be enlarged, paddy mills and hullers in particular. There are several factors hampering the development of the rice processing industry among others, the condition of equipment which needs rehabilitation and various regulations discouraging efficiency. This situation causes a deterioration processing enterprises. As rice production is planned to grow by more than 50 per cent in the next five years, the rehabilitation and expansion of paddy processing industry will be conducted. Furthermore, profits gained by rice mills and hullers is higher than that from pounding. In this way, expansion of rice mills and hullers will bring about more profitable processing.

At present, paddy milling capacity is about 0.7 million tons of rice and that of hullers about 1.5 million tons, making a total of about 2.2 million. Both this milling and hulling capacity will rise rapidly due to rehabilitation and new construction. It is planned that at the end of the five-year period rice mills and hullers can process half of the total paddy production. Bearing in mind that the target set for rice production is 15.4 million tons in 1973/74, the capacity of mills and hullers must be raised to 7.7 million tons. For this purpose, the capacity of rice mills will be enlarged from 0.7 million tons to 2.9 million in 1973/74 and that of hullers from 1.5 million tons to 4.8 million. Table VI-A-11 shows the development of the capacity of paddy mills and hullers during the coming five years.

At present, 80 per cent of paddy production is estimated to be pounded, with an output of 7.8 million tons. In the next five-year period about the same quantity will be processed in the same way. For this reason, mechanization of paddy processing will not seriously increase unemployment. On the contrary, the establishment of paddy mills and hullers will create many new jobs.

It is planned to expand milling and hulling capacity by creating a climate encouraging the private sector to invest

Table VI-A-11

INCREASE OF CAPACITY OF PADDY MILLS AND HULLERS
1968/69 -- 1973/74
(million tons of rice)

Year	Paddy Mills	Hullers	Total	Percentage of rice production
1968/69	0.7	1.5	2.2	22
1969/70	0.8	2.2	3.0	28
1973/74	2.9	4.8	7.7	50

in this field. To this end, all decisions and regulations which hamper the progress of paddy processing activities will be abolished and on the contrary measures will be taken to facilitate the development of that sector.

Another function of marketing concerns financing. Collection, transportation, storing, processing, etc, all require funds. To help with this, the necessary steps will be taken. Increase of production entails also a need for more seasonal funds. To speed financing for marketing, not in the form of subsidies, efforts will be made to mobilise funds realised from the increase of production.

Further, various steps will be taken to accelerate marketing. Among others, a system of quality standardization will be introduced. This will facilitate marketing and also reduce risks and conflicts. Besides, a system for dissemination of information on marketing will be developed. With this information farmers will be able to test whether the price they receive reflects prices in marketing centers. This dissemination of marketing information requires collection of statistical data, and improvement of postal traffic and telecommunications. Within the framework of improving marketing efficiency, a sound business climate will be fostered by among others, eliminating all physical and administrative bottlenecks.

Another thing that must be done is restore the confidence of farmers in the cooperative as an organization which strengthens their position in marketing.

7. Production Incentives

Intensification requires new inputs the farmers must buy. The low per capita income of farmers makes this difficult or hampers the use of them. Besides, because of inefficiency in the marketing of paddy and rice, as well as of the infrastructure, generally speaking, farmers must sell their paddy at a low price during harvest time, and buy supplies and equipment at a high price.

This situation does not encourage farmers to use new inputs which, as a matter of fact, can increase paddy production. Experience shows that a low price of rice and the high price of fertiliser has a negative effect on the Bimas program. For this reason, in the coming five years a price policy will be followed which guarantees a just and balanced price, assuring farmers a profitable use of new production inputs.

Implementation of a price policy will be carried out by fixing a minimum price for paddy purchased by the Government from farmers, at a level which gives them a profit. This method was started in 1968, and will be improved in the coming years, with the intention that the present farmers' formula will be adjusted to changes in the price developments of infrastructure and paddy.

The success of that price policy depends on, among other things, completing of physical and institutional infrastructure, including storage, credit, and communication facilities. The latter is needed to convey to farmers the minimum price of paddy they will receive from government purchases during harvest season. Minimum prices will be announced at the commencement of a planting period to facilitate farmers making their decisions on the application of new infrastructure and, at least, to diminish their doubt about the price of paddy to be bought by the Government during harvest season. Further, to speed up communication, it is also planned to improve the standardization of rice, which is a requisite for an increase in marketing efficiency.

Another price policy to be followed is aimed at lessening price differences of paddy between regions. In the past there was a great difference in inter-regional prices. That was caused, among others, by imperfect rice marketing in Indonesia due to poorness of inter-regional communication and regional regulations prohibiting rice movement to other regions.

Price differences will not be tolerated because they bring losses to farmers and discourage those living in low price areas. To overcome this problem, interregional communication will be improved while regional regulations constraining free rice movement between regions will be reviewed.

The above-mentioned incentive system will succeed if all farmers own the land they cultivate. As known, there are many people living in Java. Income from produce which falls into the hand of the land-owner is excluded from their income. For tenants, the income they will receive from their labour on another man's land, determines their interest in using new inputs. If tenants must finance all the cost involved in the use of new infrastructure, while they receive only a part of the income, their interest in its use will diminish. It will, therefore, be so arranged that owners and occupants will pay production costs in proportion to the income they will receive. Before formulating this policy in a concrete form, a pilot project will be launched in a few areas to test its effectiveness.

In this context, to support the above-mentioned incentive system the land reform program will be intensified while absentee ownersnip will be restricted. Efforts will be made to solve problems arising out of land reforms in an effective way.

Another price policy which will be formulated has as its objective the preventing of an unlimited increase in the price of rice at the consumer's level. In past periods the consumer's price was very unstable and often brought about increases in other prices.

Such events must be prevented because they hamper progress in the sectors of industry and export due to the influence of the rice price on the wage structure. A method to be applied concerns efforts to maintain a certain maximum price (ceiling price) which will be accomplished by dumping of rice, by the Government, onto the open market when the rice price tends to rise.

If development activities succeed and public confidence in the rupiah is restored, public servants and other groups who at present receive a part of their salary in the form of rice, might prefer cash money. Such a development would be highly appreciated because it would simplify the long existing rice problems. This does not mean, however, that the Government will stop the buying of paddy. Paddy-purchases will be continued within the framework of supporting the minimum price of paddy and stockpiling in order to maintain maximum prices.

8. Credits

In the past, the problem of credit for meeting production costs constituted a primary obstacle in the efforts to increase rice production. The problem of credits involves both supply of funds and the provision of adequate credit facilities. A shortage of funds available to paddy farmers had been evident before the Second World War.

Generally, farming is carried out on a very small scale and what is marketed is therefore also very little. Consequently, farmers are in need of credit to finance the production process. The use of new technology compels farmers to spend more than ever before. This means that with the expansion of the application of new technology, the need for credit will increase in proportion to the expansion of areal under intensification. Without credit farmers will not able to make use of the new technology. This means that the provision of credit at the village level is a prerequisite for the achievement of rice production targets. Therefore, efforts will be made to provide farmers with credit according to their need, from government as well as private institutions and successful co-operatives.

The Government will supply credit directly through the Bimas and New Bimas programs. Credit will be given to farmers if they will use the infrastructure and cultivation methods proposed. The supply of this credit will be based on need per hectare to enable farmers to apply the new technology. For the 1968 rainy season, the allocated credit per hectare was Rp.9,125 for Bimas and Rp.15,550 for New Bimas.

Bimas credit, according to plan will be channeled through B.N.I. Unit II. (Now called Bank Rakjat Indonesia). One of the weaknesses in the use of that credit institution is the fact that it is not widely enough distributed in rural areas so that farmers must go long distances to obtain credit.

Apart from the Bimas program, there is also the Inmas program. The latter is not provided with credit. Only production infrastructure such as fertilizer and insecticides will be supplied. Inmas is based on the idea that farmers, after having participated two or three times in the Bimas program, are strong enough to buy production infrastructure without credit. But in several areas it has turned out that farmers in spite of having taken part in Bimas continue to be in need of credit.

Farmers outside Bimas, generally, can obtain credit from government credit institutions, co-operatives, and private credit institutions. In addition to these institutions farmers can also obtain credit from merchants or rice brokers. Government credit institutions normally, can offer credit at a lower interest rate than private institutions. But these institutions were too much bound by rigid regulations in the past. They applied too banking oriented norms which could not be fulfilled by farmers. Furthermore, they are situated only in capitals of provinces and sub-districts so that farmers must go long distances to submit their requests. Organizationally, government credit institutions have shown improvement in the last two years. In the future follow-up measures will be taken to enlarge their capacity to meet the ever-increasing need for credit. At the present time village banks and village rice barns are being activated again.

In addition, private credit institutions in villages will be reopened including credit cooperatives. The method that will be followed will be to create a favourable climate for the development of these institutions. A survey will be carried out in order to formulate a specific method. The objective of the expansion of the private credit sector is not only to facilitate the channeling of credit but also to receive savings and deposits which will rise due to the increase of productivity in the agricultural sector. Thus, the long-range objective is to create a sound capital market which in the second Five-Year Development Plan is expected to be able to channel capital from agriculture to other sectors.

9. Projects

These efforts to raise rice production can be grouped according to certain projects. The projects are :

1. Mass Guidance Project.
2. Paddy Plant Protection Project.
3. Sang Hiang Sri Development Foundation Project.
4. Seed Improvement Movement Project.
5. Central Seed Gardens Development Project.
6. Seed Gardens Rehabilitation Project.
7. "Gogo Rantjah" - Dry season - Production Increase Project.

8. Dry Ricefield Production Increase Project.
9. Tidal Rice fields Extensification Project.
10. Paddy Production Competition/Demonstration Project.
11. Agricultural Mechanization Project.
12. Agricultural Area Expansion Project.
13. Agriculture Extension Workers' Mobility Increase Project.
14. Agricultural Guidance/Training Project.

Each project must be well-prepared on a basis of research and exact calculation.

If a certain project proves to be not fully justifiable of course, it will not be carried out.

In this context, research surveys and calculations are very important as they form the basis for adjustments of the Five-Year Development Plan to be carried out every year for the formulation of annual plans.

B. SECOND FARM FOOD CROPS AND HORTICULTURE

The production and harvested area of corn, sweet potatoes, cassava, beans and nuts had diverse growth rates, as shown in Table VI-B-1.

It is evident from these figures that the production of corn had a favorable growth, followed by cassava, sweet potatoes, peanuts and soybeans.

Corn is a good substitute for rice because of its nutritional value while cassava and sweet potatoes are significant only as sources of calories. On the other hand, soybeans and peanuts are important sources of protein in the Indonesian diet.

Table VI-B-1

AVERAGE ANNUAL GROWTH RATES OF PRODUCTION AND HARVESTED AREA OF SECOND FARM FOOD CROPS 1953 -- 1967

(in percentage)

	Corn	Cassava	Sweet Potatoes	Soybean	Peanut
Production					
Java	3.0	3.2	1.1	0.1	1.1
Other Islands	3.9	1.1	2.1	3.9	2.9
Indonesia	3.3	2.4	1.6	0.5	1.5
Harvested Area					
Java	1.3	2.7	2.6	1.3	1.5
Other Islands	4.9	5.1	4.2	6.1	3.4
Indonesia	1.9	3.1	3.2	1.8	1.8

The problem facing these second farm food crops is lack of interest. Research on improved seed received very little attention in the past, except for corn. The same is true in the case of extension services, marketing, and the problem of production incentives. The fact that the production rate of increase of these second crops was not lower was accounted for by the shift in the use of land away from rice to these crops, particularly where irrigation deteriorated through neglect. Besides, second crops, particularly sweet potatoes, do not require good land. As the fertility of land becomes exhausted, it is used to plant them.

In the present Five-Year Development Plan, the yield per hectare will be increased, particularly for peanuts, soybeans and corn. These three products have a good export potential. Cassava could also be exported in the form of starch and tapioca and efforts will therefore be directed toward the rehabilitation and development of tapioca factories. The production of sorghum, which has shown progress recently, will be further increased. The total finance required to increase the production of second crops and horticulture is estimated to amount to Rp. 3 billion in five years and Rp. 400 million in the year of 1969/70.

1. Corn

Corn is the second most important foodstuff after rice. Its production has increased by 3.3 per cent per annum. The average yield per hectare in the nineteen sixties fluctuated between nine and eleven quintals, but this is still low compared to that of other countries and needs therefore to be further increased.

As a result of research, experiments with high-yield seeds were carried out in 1963. These are the Metro and Perta varieties of corn. By using the appropriate amount of fertilizer and correct planting methods, these varieties are capable of producing, on the average, 65 to 75 quintals per hectare. This means that the production of corn could be increased to five or six times what it is at present by using the new technology on the same harvested area.

It is a pity that this great potential has not been utilized properly. Coinciding with the distribution of the new varieties, a government regulation was issued prohibiting the export of foodstuffs, including corn. The Government was pursuing a policy at that time of encouraging people to eat more corn and reduce their consumption of rice. But since this was contrary to the prevailing taste habits of the people, the market for corn did not keep pace with production and the price dropped in a very short time creating dis-incentives for the farmers growing the new varieties of corn. At the same time, the quality of the extension services and the capacity of seed-gardens declined, the infrastructure deteriorated, and the economic climate was approaching open inflation. This great opportunity to increase productivity in an important aspect of the agricultural sector, therefore, was not given a chance.

The export of corn was again permitted in 1965 and the following years. After that, the amount exported increased annually and contributed significantly to foreign exchange earnings.

Nevertheless, the average yield per hectare is still low because the new varieties have not been widely utilized. In addition, due to the failure of the initial effort, the purity of the improved seeds held by the farmers and the seed-gardens has been impaired. Also, the facilities for producing the desired qualities are not available or are too small. The harvest of corn comes in the rainy season while exported corn is required to have a moisture content of not more than 12 per cent. With the limited sunshine, this moisture content could hardly be achieved and drying facilities independent of weather conditions are therefore needed.

In this first Five-Year Development Plan, efforts will be made to increase corn production by such means as the use of pure improved seeds, proper fertilization, efficient disease control, modern planting techniques and intensive extension service. This intensification program will be carried out mainly in the principal corn producing regions such as East Java, Central Java, South Sulawesi and Lampung. In addition, extensive efforts will be undertaken in the provinces of West Java, North Sumatra, South Sumatra, West Nusatenggara and the Jogjakarta Special Territory. Based on these intensive and extensive programs, it is expected to achieve the annual production targets as shown in Table VI-B-2.

Table VI-B-2

PRODUCTION AND HARVESTED AREA OF CORN
1969/70 - 1973/74

Year	Harvested Area (million hectares)	Production (million tons)	Percentage Increase of Production
1969/70	3.15	3.37	3.00
1970/71	3.35	3.51	4.25
1971/72	3.55	3.70	5.50
1972/73	3.70	3.94	6.50
1973/74	3.85	4.23	7.25

Total production, of course, will not all be consumed domestically. It is estimated that domestic consumption will only increase by 3 per cent annually.

Corn is not only consumed by the people, but it is also a very productive feed for poultry and cattle which are sources of protein. While Indonesia will not be able to develop this potential market domestically in the very near future, it is already a big potential market in one of our neighboring countries, Japan. Japan's annual needs amounted to three million tons in the past, or about the same as the total Indonesian production. Its own production met only about three per cent of its needs. Thus there is a big potential market for corn abroad, and in order to take advantage of this, the system of marketing of corn will be improved institutionally as well as physically. Besides corn, the production of sorghum will also be increased.

2. Groundnuts and Beans

The important products in this group are soybeans and peanuts. They represent the biggest potential for increasing the per capita consumption of vegetable protein.

Production of soybean increased by 0.5 per cent annually during the period 1953-1967 while the harvested area increased by 1.8 per cent per annum, which means that the production per capita and the average yield per hectare has decreased rapidly. This was caused mainly by a lack of research on high-yield varieties, inadequate extension services and the reputed general belief of farmers that growing of soybeans does not require pre-tillage, insecticides and control of weeds (being a catch crop).

The same thing also happened in the case of peanuts, although the production and the average yield per hectare did not decrease as rapidly as in the case of soybeans.

These two products are used for domestic consumption as well as for export, and an increase in their production will improve the nutritional value of the Indonesian diet and will also increase foreign exchange earnings.

Because of this double importance, the production of nuts and beans will be rapidly increased through intensive and extensive programs. Production targets based on the above programs are shown in Table VI-B-3.

Table VI-B-3

PRODUCTION AND HARVESTED AREA OF GROUNDNUTS AND BEANS 1969/70 -- 1973/74

Year	Harvested Area (million hectares)	Production (million tons)	Percentage Increase
1969/70	1.27	0.95	2.60
1970/71	1.35	0.99	4.21
1971/72	1.49	1.08	10.90
1972/73	1.70	1.21	12.03
1973/74	2.02	1.40	15.70

Research will also be carried forward to produce high-yield varieties as well as to develop new techniques of cultivation, fertilization, insect and weed control and to find new ways to increase domestic consumption. The latter is important because without it the per capita consumption is estimated to increase by not more than 1.2 per cent per annum.

The remaining production after consumption is available for export, but the actual export of nuts and beans has decreased in the past.
The peak of export reached was for :

soybeans : 6.866 tons in 1953
peanuts : 16,322 tons in 1951,
green beans : 817 tons in 1962 and
nut oil : 5,576 tons in 1951).

Export of pulses in 1965 consisted of only 290 tons of soybeans and 6,030 tons of peanuts.

It is hoped that in the coming years, exports of pulses will again increase and become a significant source of foreign exchange.

3. Horticulture (Fruits and Vegetables)

Fruits and vegetables are important food elements. They are the main sources of vitamins and minerals needed to maintain an adequate health standard. Their cultivation in Indonesia, however, is still at a low standard. The average yield per hectare is about 7 tons which is indeed very low compared to the average yield of 30 to 40 tons per hectare in other countries.

The low average yield is partly caused by inadequate availability of production inputs such as high-yield seeds, fertilizer, pesticides, extension service and credit facilities for the farmers. Research in this field is neglected as well as physical infrastructure.

The production of fruits and vegetables can easily be increased through intensification, provision of credit and adequate extension services by the departments concerned. This will be done in the coming five years.

The targets for production and harvested area are shown in Table VI-B-4. Domestic consumption will be increasing rapidly with the increase in the per capita income. In addition, export of horticultural products will also be increased.

Table VI-B-4

PRODUCTION AND HARVESTED AREA OF FRUITS AND VEGETABLES 1969/70 -- 1973/74

Year	Harvested Area (million hectares)	Production (million tons)	Percentage Increase
1969/70	1.185	8.30	2.50
1970/71	1.200	8.70	4.82
1971/72	1.220	9.30	6.90
1972/73	1.240	10.20	9.68
1973/74	1.260	11.20	9.80

4. Root Crops

Sweet potatoes and cassava are the important crops in this group. In the Indonesian diet, cassava is the second big source of calories after rice but its nutritional value is less than that of corn and rice. In dried form "gaplek", its nutritional value is even less.

The production of cassava does not require good land, large capital or major human investment. It is therefore an important foodstuff substitute when rice is short. Its production increased by 2.4 per cent per annum during the period of 1953-1967 while the harvested area increased by 3.1 per cent. This means that the average yield per hectare decreased in spite of the discovery of high-yield varieties by research institutes.

Cassava is mostly planted on land with low fertility and on the hills, thus inducing erosion. State forests, entered illegally, are also used to grow cassava. This is one of the causes of the rapid increase in the harvested area in Java which increased by 2.7 per cent per year.

Production during the next five years is expected to grow at a constant rate of 2.4 per cent but this will be achieved through an increase in the average yield per hectare. Improved varieties, capable of producing 25 tons per hectare, will be used. The national average yield during recent years was around 8.5 to 9 tons per hectare. Research institutes have also discovered a new variety suitable for the production of tapioca and its utilization will be promoted.

Sweet potato is another root crop that contributes significantly to the consumption of calories. Unlike cassava, it is rich in vitamins A+C, so that it is to be regretted that more of it is not consumed by the average Indonesian. Production during the last 15 years increased by 1.6 per cent while the harvested area increased by 3.2 per cent, again the yield per hectare declining. This could be caused by the use of the less fertile land for growing sweet potatoes. Through the intensive use of fertilizer, this yield per hectare could be increased to 25 tons per hectare. This is high compared to the present average national figure of five tons per hectare.

Per capita consumption will not increase significantly during the next five years. It is even possible that the per capita consumption will decrease when there is a rapid increase in per capita income.

Like cassava, the production of sweet potatoes in this Plan Period will be increased in line with the past trend of 1.6 per cent by increasing the yield per hectare through fertilization and reducing the harvested area.

The Government will not directly intervene in production but will carry out research, provide extension services, and create an economic climate that is conducive to the growth of production outlined above.

Production target estimates of root crops and the harvested area during the next five years are given in Table VI-B-5.

Table VI-B-5

PRODUCTION AND HARVESTED AREA OF ROOT CROPS 1969/70 -- 1973/74

Year	Harvested Area (million hectares)	Production (million tons)	Percentage Increase
1969/70	1.96	15.66	2.21
1970/71	2.00	16.00	2.17
1971/72	2.03	16.35	2.18
1972/73	2.06	16.71	2.20
1973/74	2.08	18.09	2.27

Input requirements for second crops and horticulture are calculated on the basis of the developments projected above. Rough estimates of fertilizer requirements are shown in Table VI-B-6.

The need for insecticides and sprayers is given in Table VI-B-7.

5. Projects

Efforts to increase the production of second farm food crops and horticulture can be classified into projects as follows:

1. Project for Increasing the Production of Corn,
2. Project for Increasing the Production of Sorghum,
3. Project for Increasing the Production of Edible Roots,
4. Project for Increasing the Production of Nuts and Beans,
5. Project for Increasing the Production of Horticulture,
6. Horticulture Research Project,
7. Project for Increasing the Efficiency of Marketing for Second Farm Food Crops and Horticulture.

Preparations will have to be made for each project on the basis of accurate calculations and research. Projects that are not economically justified will not be implemented.

In these calculations, of major importance will be surveys and research, which will then be the basis for adjustments in the Five-Year Development Plan which will be made each year in the process of compiling the yearly plan.

Table VI-B-6

ESTIMATES OF FERTILIZER NEEDS FOR SECOND FARM FOOD CROPS AND HORTICULTURE

1969/70 - 1973/74

(in tons)

Year	N	P	K
1968/69	40,000	4,000	4,000
1969/70	44,000	5,000	5,000
1970/71	48,000	6,000	6,000
1971/72	53,000	7,000	7,000
1972/73	54,000	8,000	8,000
1973/74	57,000	9,000	8,000
Total	296,000	39,000	38,000

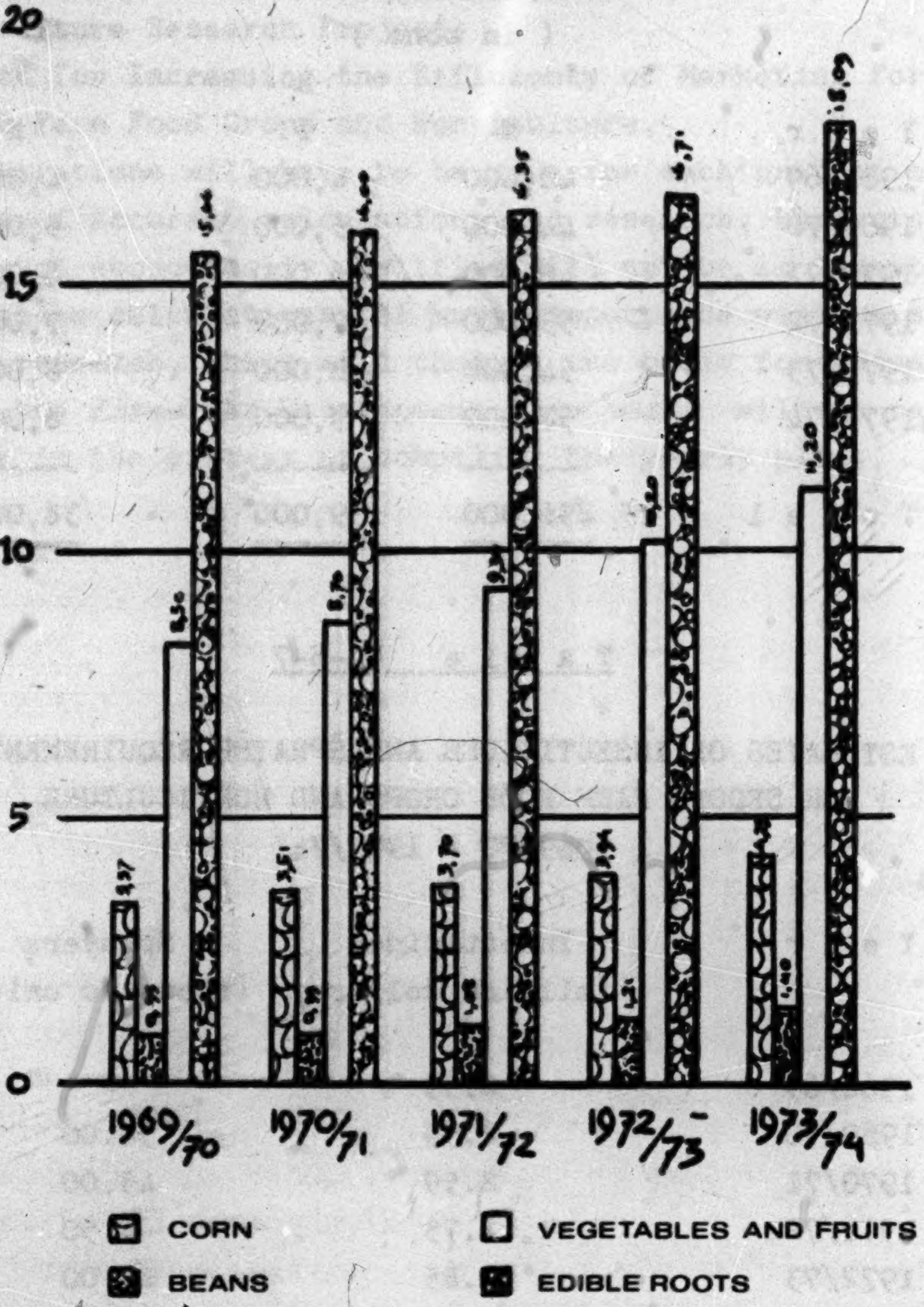
Table VI-B-7

ESTIMATES OF INSECTICIDES AND SPRAYER REQUIREMENTS FOR SECOND FARM FOOD CROPS AND HORTICULTURE

1969/70 - 1973/74

Year	Insecticides (million dollars)	Sprayers (thousand units)
1968/69	2.59	-
1969/70	2.59	30.00
1970/71	2.59	45.00
1971/72	2.75	4.50
1972/73	2.85	3.00
1973/74	2.95	3.00

PRODUCTION OF
CORN, BEANS VEGETABLES AND FRUITS EDIBLE ROOTS
(IN MILLION TONS)



C. ESTATES

The estates sector plays a key role in the Indonesian economy. Its main contribution is to earn foreign exchange through export of estate products and to provide employment. In recent years about 70 per cent of all Indonesia's export earnings came from the estates sector.

The estates sector could be divided into two groups, estates and smallholders. The main products of the two groups and their five-year production averages are listed in Table VI-C-1. Table VI-C-2 shows the trend of average yields per hectare.

It is clear from these tables that the production of each crop moved in different directions. Some increased while others decreased. The growth of estates is clearly unsatisfactory. Average production of rubber and palm oil decreased, while others had some tendency to increase. The increase was, however, very small and the situation can be characterized as unsatisfactory. The production of estates increased by only 5 per cent as compared to 1938, while its contribution to the foreign exchange earnings decreased by 20 per cent in the value of total exports.

Smallholder production also shows an unsatisfactory growth, although there are some good signs in the case of coffee and tea.

The reasons for the decline in the average yield per hectare are many. The main factor was the absence of new investment in the form of replanting or new planting. Without replanting, the age composition of the existing plants is no longer in balance, in the sense that too large a portion will be ones that have passed their productive period. The consequent low average yield per hectare increases the average cost per unit.

Table VI-C-1

AVERAGE ANNUAL PRODUCTION OF PRINCIPAL ESTATE AND SMALLHOLDER PRODUCTS
(thousand tons)

Estates	**1953-1957**	**1958-1962**	**1963-1967**
Big Estates			
Rubber	278	228	221
Palm Oil	164	146	159
Tea	39	46	41
Coffee	16	16	17
Sugar	621	593	661
Smallholders			
Rubber	476	457	512
Coffee	47	77	106
Pepper	14	24	50
Tobacco	55	62	79
Tea	24	33	43
Copra	1,056	1,266	1,298

Table VI-C-2

AVERAGE YIELD PER HECTARE OF PRINCIPAL ESTATE AND SMALLHOLDER PRODUCTS

(in kilograms)

Estates	1953-1957	1958-1962	1963-1967
Big Estates			
Rubber	645	548	581
Tea	578	744	664
Coffee	331	394	480
Sugar	121	101	80
Smallholders			
Rubber	378	315	338
Coffee	317	330	409
Pepper	689	690	1,291
Tobacco	404	377	109
Tea	383	530	698
Copra	716	770	718

This high unit cost has been aggravated by inflation, heavy taxes, an unbalanced cost structure, and illegal levies. It weakens the competitive position of Indonesian estate products in the world market.

As a result of the low average returns, the estates cannot afford necessary fertilization and research for high-yield varieties and more productive technology. The level of technology presently in use is lower than that which is in use in other countries.

Inefficient marketing also has a negative effect on production. The shift in the market for tobacco and tea from their traditional markets creates a loss to the estates. In the case of shallholders, the marketing is such that the farmer only receives a small portion of the export price and the incentive to increase productivity is therefore very small.

The processing mills are also in a deplorable condition. Their level of output is lower than normal which of course raises the cost per unit.

For smallholders, extension services are very inadequate so that the farmers do not know about new technological developments, improved seed varieties, more productive new imputs, and price developments. This last is very important in improving their bargaining power against the brokers in every selling and buying process.

To overcome these problems, efforts will be undertaken for intensive replanting, extensive use of high-yield seeds and rehabilitation or renewal of the processing mills. In the case of the estates, initial efforts will be concentrated on those that are most efficient to make possible a rapid increase in the output. These efforts will be gradually extended to the less efficient estates provided that they can demonstrate their ability to live in the future. The estates that are not justified for further investment will be converted to the production of another crop or another agricultural activity or liquidated. In addition, extension services will be increased to the smallholders. Seed-gardens will also be opened in support of the extension activities. Privately owned processing mills will be improved by providing needed facilities and a good climate in which to operate.

Other steps will be taken to improve the organization and the working system of the estates. This was begun in 1968 by abolisching the BPU (General Management Boards) and by forming the PNP (Government Estates), which cover more than one estate. This is done with the purpose of giving flexibility to estate management in its efforts to increase the productivity of the various units.

Many of the problems we have discussed originate in the scarcity of credit funds and credit institutions that can help the plantations that need them. Short-term as well as medium- and long-term credits are needed. Credit funds will be increased in the next five years through deposit collections, the development budget and foreign aid.

In the coming years, a reduction of taxes on the export sector will be considered if the Government has succeeded in increasing its revenues from other sources. In the meantime, government revenues from exports will be used for the rehabilitation of the infrastructure supporting the export sector. Strong measures will also be applied to eliminate extra-legal tax collections..

The development budget required to finance the program to increase estate production is estimated at Rp. 23 billion in five years and Rp. 4.9 billion in the year 1969/70.

The sections below will consider the problems facing estate and smallholder products and the direction of their specific solutions.

1. Rubber

Rubber is the principal source of foreign exchange among agricultural export products. In recent years, rubber accounted for more than 50 per cent of total agricultural export value, but export earnings from rubber showed a declining trend in the sixties despite an increase in the amount exported. This is shown in Table VI-C-3.

The main reason for this decline has been the steady fall of natural rubber prices in the world market. It is expected that market condition will not improve in the next 10 to 15 years but will even get worse. This first Five-Year Development Plan, therefore, will concentrate on increasing productivity per hectare in order to lower the cost per unit. This will assure the survival and improve the bargaining power of the producers.

Average production of estate rubber during the period 1963-1967 showed a decline compared to the average production of the previous years. This is shown in the following table:

	Production (in tons)	Average Production per hectare (in kilograms)
1953 - 1957	277.5	644.8
1963 - 1967	220.6	580.8

The average yield per hectare is low compared to that of Malaysia where natural conditions are about the same as in Indonesia. The reasons for the decline in production and the low yield per hectare are many. One of the major factors is

T a b l e VI-C-3

EXPORTS OF RUBBER

1960 - 1967

Year	Estate Produced		Smallholder Produced		Total	
	Quantity (thousand tons)	Value (million US dollar)	Quantity (thousand tons)	Value (million US dollar)	Quantity (thousand tons)	Value (million US dollar)
1960	189.9	134.019	387.8	234.196	577.7	368.215
1961.	237.0	122.470	443.8	189.014	680.8	311.484
1962	209.7	101.592	482.3	196.903	692.0	298.495
1963	203.3	94.073	379.2	150.866	582.5	244.939
1964	240.8	97.620	418.3	137.196	659.1	235.816
1965	208.2	87.598	486.5	135.432	694.7	223.030
1966	238.0	90.763	441.4	132.386	679.4	223.149
1967	180.0	70.000	440.0	140.200	620.0	210.200

the unbalanced age structure of rubber plantings. It has been reported that 65 per cent of mature trees have passe the age at which their yields can be expected to be econo The reason for this is because of the late start in estat rubber replanting. From 1954 to 1957 the replanting rate state-owned estates averaged 3.4 per cent per year, while the period of 1958 to 1962 the rate fell to 2.5 per cent. was not until 1963 that a crash program of replanting was introduced. Because of the late replanting program, 28 per cent of the present trees are non-productive due to their young age.

Under these conditions, a decline in export prices t place concurrently with a rise in production costs. Rubber estates were not able to produce operating surpluses, thus limiting their ability to undertake replanting during the last years. Another consequence was that no funds were ava lable out of annual operations to finance a proper progra of fertilization. On the other hand, replanting is a necessity to increase the average yield per hectare in order t enable the estates to achieve a financial surplus.

In order to solve the above problem, medium-term credits with suitable terms will be provided. Because of the limited funds available, first priority will be given to t most efficient estates in order to assure repayment on sch dule. This policy will be applied both to state-owned as well as private Indonesian-owned rubber estates and smallholders. With the available funds, it is hoped that an intensive replanting and fertilization program can be carrie out.

The replanting, extensification and conversion progra for state-owned rubber estates are given in Table VI-C-4. The cost involved is shown in column 5, including cost of fertilization and insect control. The effect of replanting

Table VI-C-4

PROGRAM FOR REPLANTING, CONVERSION AND EXTENSIFICATION OF STATE OWNED ESTATES

1969/70 -- 1973/74

Year	Replanting (ha)	Conversion (ha)	Extensification (ha)	Cost (million Rp.)
1969/70	10,000	1,420	2,460	1,240
1970/71	8,700	1,480	2,220	1,360
1971/72	8,600	1,560	1,800	2,040
1972/73	9,600	1,320	630	2,490
1973/74	9,000	1,960	640	2,720

extensification and conversion to other products is expected to show results in 7 years.

Fertilization and insect control will also be intensified. The cost of fertilization for all state-owned rubber estates is estimated at around $. 2 million a year.

Estimates on the growth of productive area, production and average production per hectare for state-owned rubber estates are shown in Table VI-C-5.

Table VI-C-5

PRODUCTIVE AREA, PRODUCTION AND AVERAGE PRODUCTION PER HECTARE OF STATE-OWNED RUBBER ESTATES
1969/70 - 1973/74

Year	Productive Area	Production		Average Production per hectare (in kg.)
		(in tons)	Percentage Increase	
1969/70	153,200	104,000	0.97	681
1970/71	154,000	109,000	4.81	709
1971/72	156,600	114,000	4.59	728
1972/73	160,400	121,000	6.14	754
1973/74	166,600	132,000	9.09	791

It is evident from these figures that the productive area will increase by only 8 per cent, while total production increases by 27 per cent. The difference affects average production which increases by more than 16 per cent. This last results from, among other things, the use of fertilizer and of more productive seeds. It is also clear from the expansion of the productive area how slow replanting was in the past.

In the field of processing, state-owned estates are planning to build "crumb rubber factories" which will be located in the main producing areas, such as North Sumatra, South Sumatra, West Java and Central Java.

Private Indonesian- and foreign-owned estates covering an area of 315,000 hectares are also in an unsatisfactory condition. More than 60 per cent of the present trees are over 25 years of age while another 20 per cent of the area is not yet productive. In such a situation, production can only be increased by "slaughter tapping". The use of fertilizer in this sector will of course raise the production but because of the small productive area, the increase will not be significant.

Smallholders' rubber covers about 1.5 million hectares with a production of more than 500,000 tons a year. Exports, in terms of value, account for 30 per cent of Indonesia's foreign exchange earnings. It is clear that this sector is very important in the Indonesian economic structure.

Average yield per hectare is estimated at a level of 300 kg per hectare which is indeed very low. Just as in the case of estates, this low average yield also stems from an unsatisfactory age pattern of the trees. It is estimated that as much as 70 per cent of smallholders' rubber may be more than 35 years old. Therefore, intensive replanting will be carried out in this first Five-Year Development Plan. The success of replanting will depend on effective extension services, the amount of profit that can be anticipated by rubber planters and the availability of new productive inputs such as high-yield seeds and fertilizer.

Because of the importance of this sector, intensive extension services will be provided in planting techniques and marketing. Efficient marketing will be promoted in order to assure a proper share of export price to the smallholders. An intensive survey will be carried out to learn about the problems that exist before deciding on policies in this sector.

With the success of the above programs, it is expected that replanting with high-yield seeds can be carried out gradually.

Seed gardens will be opened to supply high-yield seeds for replanting. They will need fertilizer, seedling-equipment, insecticides, and transport equipment.

The quality of smallholders' rubber will also be improved to meet the requirements of the world market by establishing rubber processing mills.

At the present time, sheets produced by smallholders consist of 30 per cent sheet IV, 50 per cent sheet V and 20 per cent sheet VI.

The target for quality improvement is to change the composition of smallholders' rubber sheet production to 30 per cent sheet II, 50 per cent sheet III, and 20 per cent sheet IV by 1973.

Local marketing particularly credit facilities, will also be improved.

There have been shifts in some areas of Sumatra from sheet production to remilling because marketing facilities are more available for remilling products and slabs than for sheet.

An integrated regional developemnt will be planted for areas where there are many progressive smallholders. For these particular regions, processing mills will be built (Block Rubber-Grana Process), replanting will be done to cover 500 hectares, improved cultivation technology will cover an area of 1,000 hectares, and will include extension services, fertilization experiments, supply for fertilizer, sprayers and insecticides.

In 1969, three pilot projects will be carried out in three regions, namely Muara Bunga in Djambi, Surulangun Rawas in South Sumatra, and Tandjung Baru Lahat in South Sumatra.

Replanting will affect production after 7 years. The effect of extension services and improvements in marketing and production will also take time, so that the production of smallholders' rubber is not expected to increase but possibly decrease in the immediate future. The annual smallholders' rubber production is expected to continue around 500,000 tons.

Based on the condition of rubber estates as noted above it is estimated that rubber production will grow, as shown in Table VI-C-5, for state-owned estates while for others there is also the possibility of increasing production through "slaughter tapping".

2. Oil Palm

Oil palm is the next important crop in the estate sector after rubber, judging from its contribution to the country's foreign exchange earnings. In the last few years, exports of palm oil and palm kernels have been between $ 30 and $ 50 million.

Palm oil and kernels are produced by both state-owned and private estates covering an area of 109,000 hectares, an increase of 30,000 hectares compared to 1938. Despite the increase in the planted area, production of palm oil decreased from 227,000 tons in 1938 to 160,000 tons in 1966. Five-year production averages during the period of 1953 - 1967 are as shown in Table VI-C-6.

Table VI-C-6

AVERAGE ANNUAL PRODUCTION OF PALM OIL

1953 - 1967

(in tons)

1953 - 1957	164,010
1958 - 1962	142,704
1963 - 1967	159,225

The decrease in production was caused mainly by a decline in average yield per hectare from 3.1 tons of palm oil in 1938 to 2 tons per hectare in 1966. This is low compared to the average yield of 5 tons per hectare in other countries. The low and decreasing average yield was mainly caused by unsatisfactory age structure of the trees and a poor fertilization program. The age structure of oil palm trees is such that 17 per cent of the area is planted with 5-year-old trees and 25 per cent with trees over 20 years of age. This age structure is far better than in 1963 when 18 per cent of the area was planted with trees under 5 years of age while 34 per cent consisted of trees over 20 years. Thus oil palm replanting was more successful than rubber replanting during the last 5 years.

Fertilization was inadequate because of a shortage of operating capital. In the past, only 70 per cent on the average, were properly fertilized. The problem of fertilization is not only a problem of quantity but also a problem of the right kind. Therefore, intensive research is needed to determine the right kinds of fertilizers. It is estimated that by adequate fertilization, and by using the right kind of fertilizer, the average yield per hectare will increase by 40 per cent.

In the next five years, replanting and extensification of state-owned oil palm estates will be continued to cover an area as shown in the following table:

Table VI-C-7

AREA OF REPLANTING, EXTENSIFICATION AND CONVERSION OF STATE-OWNED OIL PALM ESTATES
1969/70 - 1973/74

Year	Area (in hectares)	Cost (in Rp. million)
1969/70	10,390	884
1970/71	6,800	835
1971/72	4,520	823
1972/73	2,720	773
1973/74	1,550	482

Replanting, extensification and conversion will be carried out by using the high-yield X 5 seed which can produce, on the average, 5 tons per hectare. The present utilized seeds can produce, at the maximum, only 2.5 tons of palm oil.

Aside from that, fertilization of the present trees will also be intensified to increase the average production by as much as 500 kg of palm oil. Since the effect of this, will not be felt until 2 years after fertilization, it is hoped that in 1970 production will increase by about 40,000 tons.

As a result of past fertilization and replanting, palm oil production is expected to increase as shown in Table VI-C-8.

Table VI-C-8

PALM OIL PRODUCTION OF STATE-OWNED ESTATES
1969/70 -- 1973/74

Year	Productive Area	Production (in tons)	Percentage Increase of Production
1969/70	58,126	122,000	11.93
1970/71	59,474	148,686	21.86
1971/72	59,908	167,743	12.81
1972/73	66,417	185,968	10.86
1973/74	72,913	204,155	9.78

Viewed from the standpoint of the capacity of processing mills, the present area of production is not yet balanced. To make good use of this capacity there is still room to increase the area of production by 13,600 hectares. By making a few additions to the presents installations without changing or expanding the whole factory the capacity could again be increased by 67 per cent. To realize this, there is need to increase the area planted by about 60,000 hectares.

Private oil palm estates are not big (about 36,000 hectares), but on the basis of their normal growth, palm oil and palm kernel production of all oil palm estates is expected to increase as shown in Table VI-C-9 below.

There is no smallholders' oil palm, but in order to increase agricultural productivity, efforts will be made to encourage its cultivation by farmers. Research is being carried out at the present time to develop better ways of attracting farmers to grow oil palm. Initial efforts will be directed toward the conversion of smallholders' rubber to smallholders' oil palm. The location of these activities will have to be near estates with processing mills.

In addition to the extensification program, domestic consumption of palm oil for home cooking and for soap will be promoted. It is expected that palm oil will gradually replace copra in these areas. Looking from a macro-economic point of view this is advantageous to the copra industry because it is more profitable to export copra than to consume it domestically. A survey will be needed here before deciding on specific policies.

Table VI-C-9

PRODUCTION OF PALM OIL AND PALM KERNELS
1969/70 -- 1973/74

Year	Palm Oil (in tons)	Palm Kernels (in tons)	Percentage Increase
1969/70	172,000	41,000	8.18
1970/71	199,000	50,000	15.70
1971/72	220,000	55,000	10.55
1972/73	246,000	61,000	11.82
1973/74	275,000	68,000	11.79

3. Tea

Indonesia produces two kinds of tea, black tea and green tea. Black tea is estate-produced and mainly for export, while green tea is smallholder-produced and mainly used for domestic consumption.

Before World War II Indonesia was the third largest supplier of tea in the world, and the crop was second only to rubber as an estate product. As a result of the damage suffered by tea estates during the war, the production of export tea declined drastically. Almost 55 per cent of plantings were lost because the land was used for food production.

Rehabilitation in the nineteenfifties resulted in production and exports being brought back to about 60 per cent and 30 per cent respectively of the volumes before the war, but nationalization of tea estates at the end of the fifties brought a further set-back in production. This is shown in the following table:

Table VI-C-10

AVERAGE ANNUAL PRODUCTION OF ESTATE AND SMALLHOLDER TEA
1953 - 1967
(thousand tons)

	Estate	Smallholder
1953 -- 1957	39	24
1958 -- 1962	46	33
1963 -- 1967	41	43

The quality of estate-produced tea also declined, together with the decline in quantity, chiefly because of the rough picking methods, which produce a low quality of tea. The quality is often still further lowered because most factories presently in use are obsolete and because the tea is often stored too long in godowns or ships as a result of poor facilities for export shipping and transport.

Just as in the case of rubber and oil palm, tea plantations have not been properly fertilized since 1962. It is estimated that an average of only thirty per cent receive optimum fertilization annually. Under such conditions, the average production per hectare declines. This is aggravated further by plant diseases which cause bare areas to develop within the estates.

To overcome these problems in the coming years, fertilization will be intensified and bare areas will be replanted. Picking methods will be improved and tea factories will be rehabilitated to improve quality.

Despite an increase in smallholder production, the general condition of this sector is not satisfactory. Most crops have passed their productive age, are worn out and receive little care.

Through technical improvement of its cultivation such as picking, optimum fertilization, and disease control it is expected that tea production could be more rapidly increased.

In addition, processing and marketing will be improved. This will be carried out jointly by neighboring estates, state-owned as well as private.

On the basis of the above-mentioned developments it is expected that the production and export of tea will increase as shown in Table VI-C-11.

4. Sugar

Prior to World War II, sugar was a principal foreign exchange earner. At the peak of the development of the sugar industry, in the period 1928 to 1931, some 200,000 hectares were under sugar cane and annual production amounted to about three million tons of sugar. By contrast, in 1966 production of sugar totalled only 605,000 tons from an area of 76,000 hectares. The decline in production was caused not only by the decline in the planted area but also because of

Table VI-C-11

PRODUCTION OF TEA
1969/70 - 1973/74

Year	Estate (tons)	Smallholder (tons)	Total (tons)	Percentage Increase
1969/70	39,500	46,000	85,500	1.79
1970/71	40,000	47,000	87,000	1.75
1971/72	40,500	48,000	88,500	1.72
1972/73	42,000	49,000	91,000	2.82
1973/74	43,000	50,000	93,000	2.20

Table VI-C-12

AVERAGE YIELDS OF SUGAR PER HECTARE
(in tons)

	1935	1962	1963	1964	1965	1966
Cane	139.8	72.0	78.8	91.6	91.6	85.8
Sugar content, per cent	8.88	9.36	10.36	9.36	10.65	9.77
Raw Sugar	12.41	7.15	8.13	7.91	9.68	8.38

the decreasing average yield as shown in Table VI-C-12.

The decline in average yield is attributable to many factors but mainly to the decline in the efficiency of irrigation. Furthermore, the estates are finding it increasingly difficult to rent land for planting sugar cane from the farmers. The land used for planting sugar cane is not usually owned by the estates. Among the present estates only one owns the land it uses. With the increase in the prices of rice as well as an increase in the average yield of paddy per hectare, it is estimated that the comparative advantage of planting rice will increase compared to sugar cane. In such a situation, land rents will increase and will limit expansion of area for planting sugar cane around the sugar mills. Efforts to increase the production of sugar on the state-owned estates, therefore, will put emphasis on intensification programs through fertilization.

Through the rehabilitation and expansion of irrigation systems, fertilization will increase the average production per hectare to an optimum level.

Research to develop high-yield varieties will also be intensified. Extensification of sugar cane planting will be carried out outside Java, mainly in Sulawesi and Lampung.

A further problem facing sugar estates is the increased expense and difficulty of repairing and replacing machinery which is already very old. The average sugar factory, with few exceptions, is more than 40 years old. The cost of purchasing and replacing equipment cannot be met out of profits because it must be bought on the open market while the sugar is sold at prices fixed by the Government. In this case it is not possible for capital formation alone to meet these needs. Thus factory efficiency remains at a low level, resulting in increased cost per unit.

To overcome the above-mentioned problem, 12 of the most inefficient mills will gradually be closed. Ways are being sought to equip them with rice milling equipment in order to help accommodate the increase in rice production.

Establishment of sugar by-product factories and the rehabilitation of 26 of the most efficient sugar mills are considered.

Sugar projects at Tjot Girek and Bone will be completed. These two mills are expected to produce sugar by 1970 and 1972. They will be utilized as pilot projects to study the possibilities for sugar estate expansion.

Smallholders also grew cane for crushing in primitive mills to produce cup sugar.

In contrast with the estates, smallholders' cane area increased rapidly to reach the present level of about 80,000 hectares, which is about four times the pre-War area.

Only 15,000 hectares of this area is in the Outer Islands. To meet the growing demand for sugar, smallholders' cane farms in the Outer Islands will be extended by providing high-yield seeds. Intensification by fertilization will be carried out in Java.

One of the factors causing the relatively high cost of sugar in Java is the planting method known as the "Reynose" system which requires replanting after each harvest.

The other system is the "Ratooning" system commonly used in other sugar producing countries where each planting could be harvested 3 to 4 times.

This system can not be applied in Java because the land is rented.

In the extensification program in the Outer Islands, the "Ratooning" system and the system of unirrigated sugar cane fields will be applied.

Based on these developments, it is estimated that production will increase as shown in Table VI-C-13.

Table VI-C-13

SUGAR PRODUCTION
1969/70 -- 1973/74

Year	Area (ha)	Production (tons)	Yield per Hectare (tons)
1969/70	76,000	677,000	8.9
1970/71	78,000	761,000	9.7
1971/72	79,000	788,000	10.0
1972/73	84,000	862,000	10.2
1973/74	87,000	907,000	10.5

5. Coffee

Indonesia produces two kinds of coffee, Arabica coffee and Robusta coffee. The first one has a higher value and is produced mainly by estates while the latter is produced by smallholders.

More than 90 per cent of the coffee produced in Indonesia comes from smallholders.

In contrast to the other crops coffee production has shown an increasing trend during the years since World War II, as shown in the following table:

	1953 - 1957 (thousand tons)	1958 - 1962 (thousand tons)	1963 - 1968 (thousand tons)
Estates	16	16	17
Smallholders	47	77	106

The increase in production is mainly from smallholders. The smallholder area has increased from 84,000 hectares in 1960 to 310,000 hectares in 1966.

This increase in area was caused by significant improvement in coffee prices over the last seven years. Prices have more than doubled since 1961.

In addition, average yield has increased because of high-yield seeds capable of producing 350 kg coffee per hectare.

Income of coffee estates therefore increases and this encourages more farmers to plant coffee.

The quality of exported smallholders' coffee could still be improved by utilizing adequate processing equipment. For this purpose, coffee mills will be built in production areas such as Lampung, South Sumatra, East Java and Bali. They will utilize new but simple technology.

Farmers will also be urged to produce arabica coffee which is higher in value per hectare, but this campaign will be directed toward farmers living in areas where the climate and the land is suitable. Smallholders' coffee is usually found on the plains 600 to 900 m above the sea. For arabica coffee, this elevation is too low and special seed will be required. At present, there has been an experiment on acclimatization of a new arabica coffee. The results are satisfactory although the experiment has not yet been carried out for a long enough period or spaced widely over Indonesia. Intensive research and guidance to the coffee plantations is therefore needed. These efforts will be preceded by low plain arabica experimental plantations in the provinces of South Sumatra, Lampung, East Java and Bali.

In order to increase the income of coffee farmers and the foreign exchange earnings of the country, farmers will be urged to grow coffee interplanted with vanilla because vanilla is quick yielding, has a higher yield value per hectare, is a good shade tree, and has a large export potential. Indonesia is the major vanilla exporter to the United States. In the first year of the Plan, pilot projects will be opened in the hope that by 1973 vanilla planting in smallholder coffee farms will cover an area of 4,000 hectares.

The growth of production and the average yield of estates have shown a decline. Coffee production in 1966 decreased by 80 per cent compared to 1960 while the total area decreased by only 20 per cent. This indicates a rapidly decreasing average yield per hectare during the last seven years. This decline must not be allowed to continue and in this Five-Year Plan production will be increased by replanting high-yield seeds on state-owned estates to cover an area of 200 hectares per year. Through fertilization and replanting, coffee production of state-owned estates is expected to increase as shown in Table VI-C-14.

Table VI-C-14

COFFEE PRODUCTION OF STATE-OWNED ESTATES

Year	Productive Area (ha)	Production (in tons)	Percentage Incr. in Production
1969/70	18,445	11,187	13.52
1970/71	18,570	7,988	- 7.14
1971/72	18,160	10,912	13.66
1972/73	18,170	7,492	- 6.86
1973/74	18,595	11,699	15.61

On the basis of these figures, it is estimated that production will increase on the average by four per cent a year reaching a level of 163,000 tons by 1978. Indonesia is a member of the International Coffee Agreement and with this growth the present surplus will continue to grow. A survey is therefore needed as a basis for the formulation of coffee policies to solve this surplus problem.

6. Tobacco

Most of the tobacco produced in Indonesia is consumed domestically by the cigarette industries. Nevertheless, foreign exchange earnings out this source is also significant amounting to $30 to $40 million a year.

The important variety is Virginia tobacco. Its production is totally consumed by domestic cigarette industries. In order to meet the demand of these industries, Indonesia even has to import virginia tobacco.

Virginia tobacco is produced only in Java. Since the population density of producing areas has already reached a maximum, it is no longer possible to increase production by extensification. In the short run, the solution to the problem lies therefore in intensification efforts. Through fertilization, the yield per hectare could be increased by a minimum of 12 per cent or 0.5 quintals per hectare. In this Five-Year Plan, extension services will be provided to urge fertilization with the right kind of fertilizer. Credit will be needed to buy fertilizer and it is expected that this will be provided by the Bank Rakjat Indonesia.

Studies will also be carried out on the possibility of growing virginia tobacco in the Outer Islands. A survey will be conducted before the formulation of specific policies on virginia tobacco.

Recently, cigarette industries using virginia tobacco as a raw material, have been complaining about the quality of the tobacco. To solve this problem, extension services will be improved in the areas of technical cultivation, processing, sorting, and search for high-yield varieties. The cost is estimated at Rp. 15 million in five years.

Most of the estate-produced tobacco is exported, consisting of Deli, Vorstenlanden and Besuki brands. Deli tobacco has the highest quality for cigar wrapper although there is a strong competition lately from Cameroun tobacco.

The problem faced by smallholders is different. Although the production of this sector shows an increase, its technical cultivation and processing has not reached an optimum level. By improving these methods, production can be still further increased.

Sprinkler irrigation will be applied to cover an area of 2,000 hectares. It is estimated that sprinkler irrigation will raise production by 8 per cent and improve the quality as reflected in revenues, by as much as 10 per cent.

Eight-year rotation in the use of land means that the land has become a forest before recultivation. The re-opening of the land requires agricultural equipment to allow for better and more intensive cultivation. It is estimated that mechanization will increase production by 5 per cent and quality by 3 per cent.

On the basis of the above programs, tobacco production of state-owned estates is expected to grow as follows:

Table VI-C-15

TOBACCO PRODUCTION OF STATE-OWNED ESTATES
1969/70 - 1973/74

Year	Production (in tons)	Percentage Increase
1969/70	9,700	1.56
1970/71	9,820	1.24
1971/72	9,940	1.22
1972/73	10,060	1.20
1973/74	10,180	1.19

7. Copra

More than 95 per cent of copra produced in Indonesia comes from smallholders. For some producing areas such as North Sulawesi, Central Sulawesi and the Moluccas, changes in the copra industry will affect the economic and social conditions of the region. Viewed from the point of view, of the nation, copra is an important source of foreign exchange.

Copra production has continuously shown a declining trend and it is estimated that this trend will continue in the future. One of the main reasons is the unsatisfactory age distribution of the trees.

According to available data, the present age structure is such that more than 50 per cent of the trees are more than 50 years of age. In some areas, this slow replanting is probably caused by the lack of incentive to copra farmers. The decrease in copra production has been coupled with an increase in domestic consumption resulting in rapidly declining exports.

To prevent production from a further decrease, replanting with intensive fertilization is planned. At first, replanting will be promoted to cover an area of 120,000 hectares during the coming five years through intensification of extension services.

Other changes will be made such as institutional improvements in the copra business to create an incentive for the farmers to produce more.

One way to increase the income of copra producing farmers is to increase the production of rope utilizing coconut fiber as a raw material. As a first step, a coconut fiber factory in Jogjakarta will be rehabilitated. Other steps will be undertaken to increase the income of copra producing farmers such as interplanting with cacao.

State-owned estate production of copra will be intensified through fertilization, and it is expected that the production will grow as shown in Table VI-C-16. During the first few years, no increase is expected because the effect of fertilization will not be felt before two years.

Table VI-C-16

COPRA PRODUCTION OF STATE-OWNED ESTATES

Year	Productive Area (ha)	Production (in tons)	Percentage Increase in Production
1969/70	3,065	1,100	0
1970/71	3,065	1,100	0
1971/72	3,065	1,200	9.09
1972/73	3,065	1,300	8.33
1973/74	3,065	1,500	15.38

8. Cacao

Cacao has not been produced in any large quantity. The Indonesian production is only 0.05 per cent of total world production and is produced by both estates and smallholders. The growth of cacao production during the last 9 years is shown in the following table:

	1959 - 1961 (in tons)	1965 - 1967 (in tons)
Estates	1,050	639
Smallholders	234	366

It is clear from these average production figures that the production of estates has decreased by 39 per cent while the production of smallholders increased by 50 per cent. To prevent a further decline, state-owned estates are planning to replant an area of 700 hectares during the next five years as well as increase fertilization. Table VI-C-17 shows the estimates of production of cacao by the estates during the next five years.

Table VI-C-17

CACAO PRODUCTION OF STATE-OWNED ESTATES
1969/70 - 1973/74

Year	Productive Area (ha)	Production (in tons)	Percentage Increase in Production
1969/70	2,944	815	16.50
1970/71	2,984	1,008	23.68
1971/72	2,919	1,106	9.72
1972/73	3,034	1,257	13.65
1973/74	3,401	1,625	29.28

With smallholder cacao, the problem is to improve quality. Indonesian cacao known as "edel cacao" has a good price abroad if the quality could be raised to meet competition. In order to improve quality, cacao processing mills will be built at agricultural centers. The use of better cultivation techniques for the present crops and replanting with improved varieties will also be promoted.

9. Pepper

In 1938, pepper production of Indonesia amounted to 55,000 tons, which was 80 per cent of total world consumption. During the years after World War II and the revolution, pepper production declined drastically. This was caused mainly by the destruction of pepper estates during the Japanese occupation. In the nineteensixties, production again increased as shown in the following table:

Year	Planted Area (in hectares)	Production (in tons)	Export (in tons)
1961	34,739	13,674	19,079
1962	36,922	55,431	10,961
1963	38,414	57,921	27,950
1964	36,595	46,413	23,180
1965	37,100	46,500	12,287
1966	41,957	46,546	20,714

The decrease in planted area and production during the years after 1963 was caused by rotten stem disease and yellow disease. To stop this declining trend, steps will be undertaken to fight these diseases, beginning in Bangka and Lampung, in order to raise the production by about 10 per cent a year.

Intensive research will also be carried out to produce resistant varieties by building experimental stations in the trial areas.

10. Cloves

Cloves are produced for the use of domestic industry. Since the beginning of the nineteenth century, Indonesia's position as major producer of cloves has been taken over by Zanzibar and Madagascar. Indonesia has even become the largest importer of cloves since the developments of the "kretek" cigarette industry in the nineteentwenties. Before the Second World War, the domestic kretek cigarette industry consumed 18,000 tons of cloves a year, mostly imported. During the nineteenfifties, the capacity of the kretek cigarette factories declined to an average of 12,000 tons of cloves a year. During this period, 9,000 tons of cloves were imported annually. Efforts have been made since 1958 to achieve self-sufficiency in cloves and the results began to be seen after 1964. The growth in area and production during the nineteensixties is given in the following table:

Year	Area (in ha)	Production (in 1000 tons)	Import (in 1000 tons)	Total Import + Production
		7		
1961	46,808	7.07	9.04	16.11
1962	48,594	6.55	5.15	11.70
1963	50,692	7.94	5.42	13.36
1964	61,250	12.59	8.90	21.49
1965	67,117	13.72	4.64	18.36
1966	70,500	17.18	6.83	24,31

It is clear from the table that production cannot meet the domestic needs and large quantities will therefore have to be imported. At the first stage, production will be increased by establishing experimental stations of 10 hectares each for seed production, and to demonstrate techniques of planting and cultivation (fertilization, insect control and picking techniques). Projects will be distributed in West Sumatra, Lampung, Central Java, North Sulawesi and in the Moluccas.

11. Nutmeg

Indonesia and India are the major producers of nutmeg. It is mostly produced by smallholders and mainly in the Eastern Islands covering an area of 14,000 hectares. On the average, 3,000 to 4,000 tons of nuts and mace are exported each year.

The future prospect is still good and world as well as domestic demand are still showing an increasing trend.

It is natural to develop this sector and in the Five-Year Development Plan efforts will be undertaken to rehabilitate nutmeg plantations in the Moluccas and to improve varieties.

12. Cassia Vera and Cinnamon

Cinnamon and Cassia Vera are among the spices produced in Indonesia. They are important as sources of foreign exchange. Their export reached a value of $4.6 million in 1967. The future of the Cassia Vera industry in Indonesia is relatively good since the demand for it will increase and the other main supplier, namely Vietnam, has not gained political stability.

To increase production, an intensification project of the Cassia Vera crop is planned, costing Rp. 326 million. In order to improve the quality a project for improvement in processing and marketing of Cassia Vera is also planned, costing Rp. 937 million.

13. Cotton

Cotton has been known for a long time but the planted area has never been big and its contribution to the development of the textile industry is insignificant. Average yield per hectare is still low and the cost per unit is high. At the same time, the domestic selling price is low because of the low quality. Consequently, cotton production was never large in recent years and shows a declining trend.

The demand for cotton will increase in the next five years because of the growth of the textile industry. It is logical therefore, to meet part of this demand by an increase in the domestic production. Efforts will be coneentrated on increasing productivity by utilizing high-yield varieties while carrying on research activities to produce better seeds and the proper types of fertilizer for intensification. Extension services will be promoted.

14. Projects

The program to increase estate production is subdivided into various projects such as follows:

1. New Planting/Replanting/Conversion of State-owned Oil Palm and Rubber Estates Project.
2. Smallholder Rubber Replanting Project.
3. Development of Crumb Rubber Faelnus Mill Project.
4. Rehabilitation/Modernization of Oil Palm Mills Project.
5. Rehabilitation/Modernization of Sugar Factories Project
6. Development of Sugar Industry Outside Java Project.
7. Rehabilitation/Expansion of Sugar By-products Project.
8. Rehabilitation of Tea Plantations Project.
9. Rehabilitation/Modernization of Tea Factories Project.
10. Increase in the Productivity of Tobacco Estates Project
11. Farm Coconut Replanting Project.
12. Rehabilitation/Expansion of Low Plains Experimental Coffee Plantations Project.
13. Increase in the Production of Cloves Project.
14. Rehabilitation of Nutmeg Experimental Plantations Project.
15. Increase in the Production and Quality of Pepper Project.

An implementation program will be prepared for each project on the basis of careful research and calculations. If a project is not justified it will not be implemented. Surveys and research will play an important role in this respect as basis for the annual review of the Five-Year Development Plan which will be carried out each year during preparation of the yearly plans.

D. FISHERY

According to expert estimates, Indonesia's sea and land fishery could produce 7.6 million tons of fish per year. But in 1967 production reached only 15 per cent of this amount, as a result of the backwardness of our fish industry. Nevertheless, a significant increase in production has been recorded in the past as can be seen in the Table VI-D-1 below.

Table VI-D-1

AVERAGE ANNUAL FISH PRODUCTION 1953 - 1967
(in thousands of tons)

	1953-1957	1958-1962	1963-1967
Sea fishery	400	450	650
Land fishery	220	300	440

The above figures show that sea fish production increased by 60 per cent in the last fifteen years while that of inland fishery increased by 100 per cent. Although production increased rapidly, per capita consumption remained low. It is estimated that, in 1967, per capita consumption was only 11 kilogram, 6.6 kilogram land-fish and 4.4 kilogram sea-fish. This level of consumption was still far below that proposed by nutrition experts in order to assure proper health for the average Indonesian.

Indonesia's low fish production is caused by many factors. First, the technology used by our fishermen lags far behind the common international standard. For instance, Indonesian fishermen do not know yet the electronic fish-detector, a technique widely used in the fishery world. Furthermore, in 1966 only 1.3 per cent of the whole Indonesian fishing fleet was motorized. The fishing fleet situation in 1960 - 1966 is shown in the following table.

Table VI-D-2

TOTAL OF FISHING BOATS IN INDONESIA
1960 -- 1966

Year	Sailing boats (prao's)	Motorized boats
1960	169,975	1,456
1961	195,421	2,211
1962	206,843	2,867
1963	212,681	2,989
1964	231,659	3,200
1965	225,419	3,342
1966	241,888	3,357

The problems of the inland fishery industry differ from those of the sea-fish industry. As can be seen in table VI-D-1 the average land-fish production was 440,000 tons during the years 1963-1967, but of this 75 per cent came from natural waters (rivers, lakes etc.), and the rest from artificial waters such as fishdam, pond and rice field. At present, the total area of fresh water ponds is 36,000 hectares producing about 47,000 tons of fish annually. This production can be raised through improvements in the techniques of breeding, cultivation and the fish stocking system. Besides fresh water ponds there are 120,000 hectares fishdams with an annual production of more than 41,000 tons of fish. This production can also be doubled through improvements in the techniques of breeding, cultivation and management.

Fish production from widely scattered rice fields, particularly in Java has suffered a decline in recent years which can endanger the continued existence of this sector. This has been caused by the increased use of insecticides in the rice-fields. To counter this problem efforts will be made to introduce insecticides with low toxicity. This matter has been dealt with in the section on rice production.

In dealing with these problems, and bearing in mind that fish constitutes a source of essential and cheap animal protein, the aim of the Five-Year Development Plan for the fish industry will be to achieve a more rapid annual production increase. The targets for fish production in the coming five years are as follows:

Table VI-D-3

FISH PRODUCTION
1969/1970 -- 1973/1974
(thousands of tons)

Year	Sea	Land	Total	Percentage increase
1969/70	898	525	1,423	9.5
1970/71	1,003	551	1,554	9.2
1971/72	1,085	579	1,664	7.2
1972/73	1,200	608	1,808	8.7
1973/74	1,331	638	1,969	8.9

To achieve this production increase, sea fishing will be intensified through improvements in equipment and fishing methods, the addition of new equipment or the replacement of old by more efficient equipment. The motorized fleet will be enlarged, and the use of gill nets expanded. To increase domestic fish consumption and exports, an intensive program will be directed to the increased yields of "chakalang" *) and tuna fish and shrimp. "Chakalang" is found in large numbers in the waters between the islands of Sulawesi and West Irian, while tuna is found in the Indonesian Ocean south of Sumatera, Java, Nusatenggara and the Banda Sea. There is a great foreign demand for these two kinds of fish and shrimp so that their market is not limited to domestic demand. At the moment, the fish and shrimp industry is conducted on a very small scale by the people and by state enterprises with a small number of motorized boats (prao's). In the coming five years it is intended to expand its scale substantially by using modern equipment so that the production of "chakalang", tuna and shrimp can reach 30,000 tons, 4,000 tons and 1,000 tons respectively. It is estimated that 80 per cent of "chakalang" production can be exported.

This intensification of sea fishery must be accompanied by improvement and extension of infrastructure and marketing. Fishing harbors will be improved at the ports of Eretan, Bagan Siapiapi, Muntjar, Labuhan, Tjilatjap, Tegal, Pontianak, Pulau Laut, Bitung, Surabaja, Gresik, Semarang, Ternate, Ambon, Belawan, Batang, Dumai, Samarinda, Makasar, Palembang, Mesudji, Pidi, etc. This improvement program will include dredging of river mouths and improvement of port facilities such as quays, water supply, auction halls and storehouses. Credit institutions serving this sector will be improved and the supply of credit will be enlarged through the development budget, foreign aid or third party deposits.

To raise the production of land fishery, adequate supply of fingerlings will be provided. For this purpose, fish hatcheries will be rehabilitated and improved in order that they can fulfill their supply function assuring stock of

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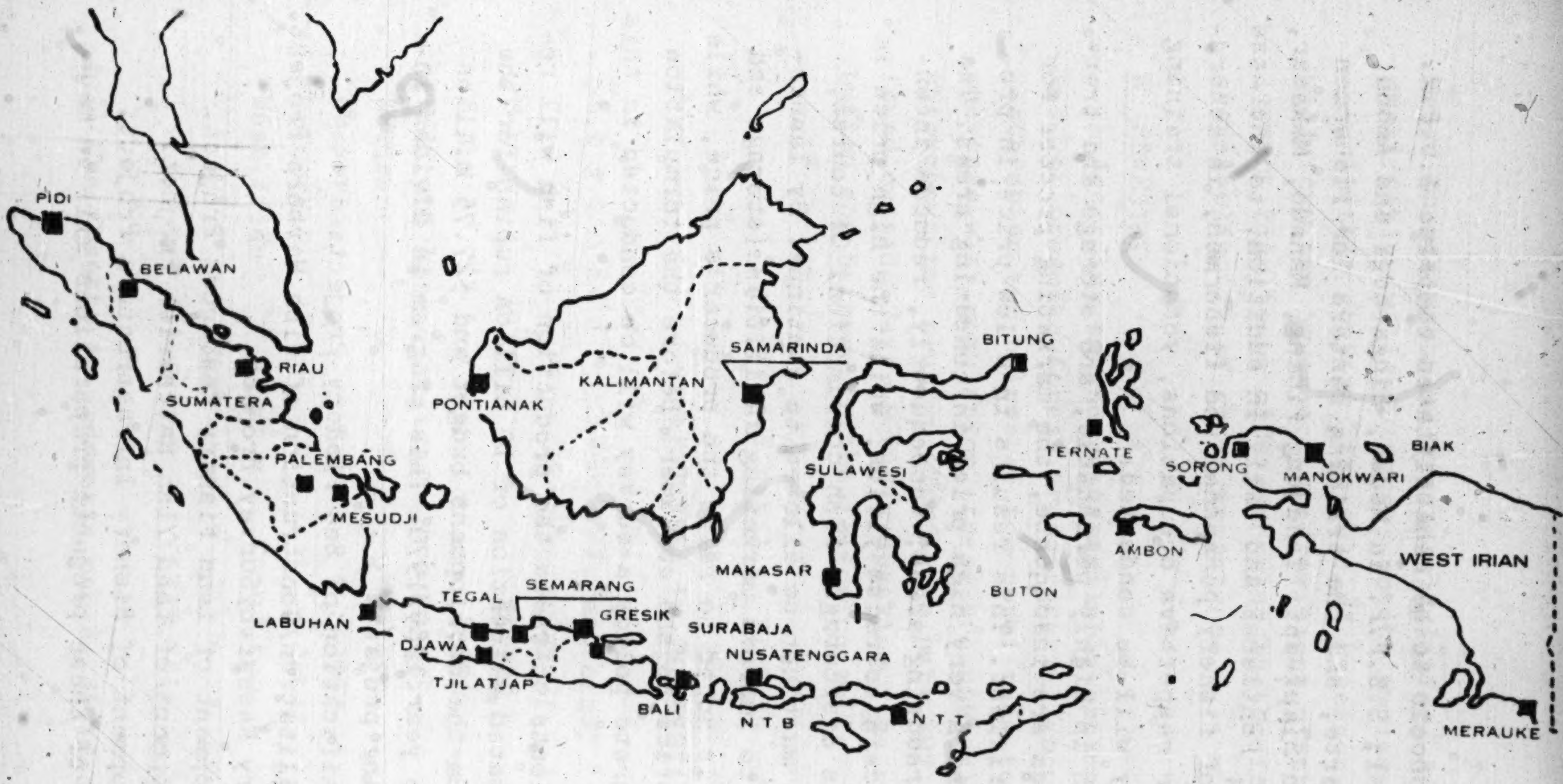
*) "Chakalang" may be called "small tuna". It needs a certain percentage of salinity of the seawater as found in the seas around the islands of Sulawesi and West Irian.

good quality during the period of rearing, collection and distribution. Swamp waters, so far non- or less-productive, will be exploited by improvement of their technical management. At the first stage it is planned to exploit swamps in East Java, e.g. in Tangerang, Kediri and Ngandjuk, and in Central Java, e.g., in Kudus, South Kedu and Tjilatjap. Further, efforts will be made to maintain and rehabilitate lakes in order that they can function as sources of fish. At the first stage, rehabilitation will cover the lakes in South and West Sumatera, East Java, South, Central and North Sulawesi, Kalimantan, Moluccas and Bali. In addition, flood-ebb ponds will be constructed, particularly outside Java.

In increasing production of land fishery, efforts will be made to provide sufficient fish food of good quality. In addition, it is planned to combat the poisoning of fish in ricefields, ponds, and dams as well as in natural waters. Besides efforts which have a direct effect on the production of fish, improvement of facilities supporting those efforts will be launched.

In the first place, surveys into the important varieties of food fish will be intensified. Special attention will be given to sardines, "teri", yellow tail, "lajang", "bawal", "tenggiri", shrimp, tuna, cuttle fish, and other sea products. Based on the results of these surveys it is hoped that the following can be determined : fish areas, fish seasons, fish preserving methods and fishing methods. As regards land fishery, surveys will be conducted on fish stock and intensification methods in natural as well as artificial waters. In the efforts to reach those production targets fishery education constitutes a decisive factor. In this context, existing fishery schools, from the Junior secondary to the Academic level, will be rehabilitated and improved. These activities will be carried out in stages, suited to prevail-


PIDI
BELAWAN
RIAU
SUMATERA
PALEMBANG
MESUDJI
PONTIANAK
KALIMANTAN
SAMARINDA
BITUNG
TERNATE
SORONG
MANOKWARI
BIAK
SULAWESI
AMBON
WEST IRIAN
MAKASAR
BUTON
TEGAL
SEMARANG
GRESIK
SURABAJA
NUSATENGGARA
LABUHAN
DJAWA
TJILATJAP
BALI
N T B
N T T
MERAUKE

■ PROJECT LOCATION
REVISING OF FISHERY HARBOURS

SUB SECTOR: FISHERY
REVISING OF FISHERY HARBOURS

ing urgency. Schools to be rehabilitated comprise S.U.P.M. in Manado, Tegal; S.U.P.P. in Medan, Singaradja and Ambon; A.U.P. in Djakarta, and the training centers for fishermen in Tegal, Bagan Siapi-api, Tandjung Pinang, Manado, Makasar, Ternate, Ambon, Pontianak and Bali. In addition, to increase the knowledge of fishery personnel and fishermen, in accordance with their respective occupations, vocational training in land fishery will be conducted.

Since fish is highly perishable, and storage and transport facilities are inadequate, the marketing process for fish is not efficient. This results in a low price in producing areas and a very high price in consuming areas. The low price in producing areas, consequently, reduces incentives to producers to raise yields, while the high price in consuming areas discourages fish consumption. Of course, this situation must not be allowed to continue. By launching a program to improve marketing facilities (storage and transport) it is hoped to raise the producer's price, while lowering the price to the consumer. Before the formulation of a more concrete policy a survey will be conducted in this field.

These efforts to raise the production of fish will require an estimated allocation of 10 billion rupiah for the five years from the development budget and 527.75 million rupiah for the year 1969/1970. This program is divided into the following projects :

1. Intensification of Sea Fishery Project.
2. Rehabilitation/Construction of Fish Harbors Project.
3. Fishery Research/Survey Project.
4. Development of Land Fishery Resources Project.
5. Development of Land Fish Hatcheries Project.
6. Development of Fishery Infrastructure Project.

For each of these projects preparations will be made, based on research and exact calculation. Any project not justifiable, will of course, not be implemented.

In this context, the role of research and surveys which will form the basis for the revisions of the Five-Year Development Plan to be made each year in the formulation of the annual plan, is of great importance.

E. FORESTRY

According to the best available estimates, Indonesia has, at present, forest areas covering about 120 million hectares or two thirds of the total territory. But, as is the case with population, these are unevenly distributed throughout the country. The large part, 97.5 per cent, is found outside Java. Broadly speaking, the regional distribution can be seen in the following table.

Table VI-E-1

FOREST AREA IN INDONESIA

Region	Forest area (thousands of ha)	Percentage of land area
Sumatera	24,220	57
Java	2,906	22
Bali and Nusa Tenggara	1,485	24
Kalimantan	43,670	68
Sulawesi	6,300	32
Moluccas	6,000	71
West Irian	33,500	78
Indonesia	119,381	65

The forests in Indonesia can be divided into several groups. Forty-eight million hectares constitute protection forests, a group of forests which, because of their ecological characteristics, are essential to the conservation of water-sheds, prevention of floods and erosion, and maintenance of soil fertility. Twenty-four million hectares constitute production forests, a group of forests exploited for forest products to meet the needs of the community, industries, and exports. It is these forests whose exploitation can be intensified as part of the development effort. There are about eighteen million hectares of forests which can be converted into agricultural land (conversion forests). The rest, totalling 30 million hectares, are classified as damaged forests. Damaged forests are the result of repeated wild-felling of trees, fire etc.

Based on above figures the area of forests which can be exploited covers about 42 million hectares consisting of 24 million hectares production forests and 18 million hectares conversion forests. At present, the total area of forests already utilized is about 3 million hectares, or 7 per cent of the total exploitable forest area.

In this situation, it is not suprising that the forestry sector has as yet made little significant contribution to the Indonesian economy, compared to the contribution of other agricultural sectors.

Between 1960 and 1965 the annual production of teakwood, jungle wood, and other forest products was 410,000 m^3, 1,600,000 m^3 and 439,000 m^3 respectively.

The decline in that production was the result of ever-worsening conditions of the infrastructure and tree-felling facilities in producing areas, a shortage of ships for transport, inadequate skill and experience of entrepreneurs, and the general economic situation which was characterized by inflation. As regards teakwood in particular, over-felling during the Second World War reduced the amount and quality of wood now available. In this connection, the existence of unreported production of between 2 to 3 million m^3 per annum is to be noted.

The record of timber exports from 1960 to 1965 can be seen in Table VI-E-2 below.

Table VI-E-2

TIMBER EXPORT PROGRESS
1960 -- 1965

Year	Teakwood (1,000 m^3)	Jungle (1,000 m^3)	Value (in million US dollars)
1960	13.0	113.4	1.8
1961	8.1	93.2	1.3
1962	4.4	113.5	1.0
1963	7.6	99.3	1.5
1964	10.3	63.2	1.8
1965	11.5	127.0	2.0

These figures clearly show that the timber industry in Indonesia, both for domestic consumption and for export, is far below the level which could be reached.

To maintain continuity it is estimated that production forests covering around 42 million hectares, can be felled selectively and in a rotation of about 60 years. On this basis approximately 400,000 hectares can be felled annually. If each hectare can produce 40 m^3 round wood, annual production could then be 16 million m^3. If all this can be exported, the export value is estimated to be as high as US$ 240 million. This is, of course, a rough estimate because it is based on the assumption that all production forests can be exploited and that the greater part of the production can be exported. But this figure can, at least, give us a picture of the very great potential of our forest resources.

For comparison, we can note that the Philippines, having an area of only 13 million hectares of tropical forests, could export in 1964 forest products to the value of 96 million dollars while Malaysia, with a forest area of 25 million hectares could export in the same year, timber valued at 60 million US dollar.

The low level of forest utilization in Indonesia can be explained by factors that have hampered the development of the Indonesian economy throughout the past: shortage of capital and shortage of skill and experience. The shortage of capital is reflected in the shortage and poor condition of transport and shipping facilities resulting in a high cost of transport from producing to consuming areas. Further, another inhibiting factor is the poor road transport facilities connecting producing areas with storing and shipping areas for forest products. Besides that, a lack of forestry research and surveys also hamper efforts to raise production.

The shortage of skill and experience is reflected in the very small number of skilled manpower in the field of forestry, very little interest from national entrepreneurs in launching forest exploitation operations on a large scale employing modern civiculture, and the low productivity of those forest that are exploited. At present, one of the best ways for Indonesia to obtain capital, skill and experience, is by accepting cooperation with foreign investors with long experience in the exploitation of tropic forests.

Up to now, among the many foreign entrepreneurs who are interested in forest exploitation in Indonesia, 25 units have obtained permission for forest exploitation.Out of this total, six are in the form of straight investment, five in the form of joint enterprise, eight in the form of production sharing and six are national enterprises.

The area covered by these forest concessions is 2,445,000 hectares. The total capital proposed to be invested is about $ 107.7 million and Rp. 389 million.

It is hoped that the policy of encouraging international cooperation and participation will increase timber production as well as export in the years to come.

With the increase in forest exploitation outside Java, particularly that carried out by or with foreigners, timber production for the years 1969-1973 is projected as follows:

Table VI-E-3

WOOD PRODUCTION
1969/70 - 1973/74

Year	Teakwood (1,000 m^3)	Jungle (1,000 m^3)
1969/70	400	2,500
1970/71	400	3,200
1971/72	400	4,200
1972/73	400	5,800
1973/74	400	7,500

The use of modern exploitation methods will raise present timber exports of about 500,000 m^3 per annum to 1.2 million m^3 in 1969, with a yearly increase of 800,000 m^3 to 1,000,000 m^3. It is hoped that it can reach a total of five million m^3 in the last year of the Plan. The expected annual progress can be seen in Table VI-E-4.

T a b l e VI-E-4

EXPORT OF WOOD AND OTHER FOREST PRODUCTS
1969/1970 -- 1973/1974

Year	Teakwood		Jungle		Other Forest Products	Total Value of exports
	Sawn (1000m^3)	Round (1000m^3)	Sawn (1000m^3)	Round (1000m^3)	(ton)	(in $ million)
1969/70	12	12	4	1,200	73	28.5
1970/71	15	13	8	1,680	83	43.0
1971/72	20	14	12	2,460	69	58.0
1972/73	25	15	16	3,570	76	85.0
1973/74	35	16	20	5,000	76	120.0

The possible establishment of timber-based integrated industries such as veneer, plywood, paper, rayon, etc., would bring with it an increase in timber production which would go far beyond the export totals stated above.

In broad outline, the activities to be carried out in the field of forestry can be divided into five main groups:

(1) forest inventory and planning to get more complete data on all matters concerning forests,

(2) increase in production and export of timber and other forest products,

(3) development of forests to maintain continuity in order to ensure that the increased production and export of timber and other forest products can be guaranteed for the future,

(4) education and guidance to upgrade the vocational quality and skill of forestry personnel, and to impart to the people a thorough understanding of the economic significance of forests and the importance of their conservation,

(5) research aimed at raising production and export.

To obtain more exact data on the location, extent, varieties, and distribution of trees, and other important information on our forest resources as a whole, it is planned to carry out the inventory, planning and consolidation of forests. In addition, certain districts, of sufficient size and at suitable locations, will be set aside as specialized forest territories, such as protective forests, productive forests, forests for conservation, and forests for recreation. Inventories are essential for the formulation of national forest plan; without adequate detailed knowledge of our forest resources, we cannot prepare an appropriate working plan. Further, this knowledge is also important for us in negotiations with foreign investors who intend to launch forestry operations in Indonesia.

And further, to improve the efficiency of landuse administration, efforts will be made to determine in a macro sense, the use of land in each sector (forestry, agriculture, lifestock breeding, irrigation etc.), and, in micro, to identify the technical, physical, economic and biological requirements in each sector.

To increase the contribution of the forestry sector to economic development, the production, processing, and efficiency in planting of forest products will be upgraded. Included in this program will be the rehabilitation of roads for transport of forest products (particularly outside Java), improvement of ship-loading of timber, formulation of guidance on varieties of export, curbing of illegal cultivation on forest concessions, stockpiling, processing and saw-milling, and intensification of control over large-scale exploration projects. The production and marketing of non-timber forest products such as rattan, resin, etc., will also be developed.

Further, to expand forest products such as natural silk, cajput oil, sealing wax, black wood, and illipe fat, multipurpose forests will be developed. Also forest product industries such as processing of synthetic board, cello crete, veneer, plywood etc. will be developed and expanded.

To deepen the understanding of the community, particularly those living in forest areas, about the significance of continuous forest maintenance and care, forestry extension efforts will be intensified. Further, for the foundation, help, guidance, and direction of every forestry activity, research on forests will be carried out. In this connection, the education of forestry personnel will be upgraded in order to raise the efficiency of their efforts.

Technical and administrative guidance and control of development projects are necessary to prevent irregularities, mistakes and misuse. Therefore, the provision of guidance and the exercise of control, will be intensified by the development of basic forestry laws, increase of executing efficiency, field supervision, etc. Control will also be intensified to protect wild animals and beautiful scenery from destruction and damage by human hands.

The budget for the program to increase timber production and develop forests is estimated at Rp.10 billion for the five years, and Rp.601.5 million for the year 1969/1970.

The program can be divided into projects, as follows:

1. Inventory and National Forest Planning Project.
2. Increase in Efficiency of Land-use Administration Project.
3. Consolidation and Registration of State Forests Project.
4. Development of Multi-purpose Forests Project.
5. Increase in the Production and Processing of Timber Project.
6. Increase in the Production and Processing of Teakwood Project.
7. Increase in the Production of Non-timber Forest Products Project.
8. Development and Expansion of Forest Product Industries Project.
9. Forestry Extension Service Project.
10. Protection of Natural Refuge and Recreation Forests Project.
11. Forestry Education Project.
12. Control of Forest Development Project.
13. Development and Expansion of Forest Product Marketing Project.

Preparation of each of these projects must be based on research and careful calculation. Projects which cannot be justified will, of course, not be implemented. In this context, research and surveys play a significant role, which later will form the basis for adjustments in the Five-Year Development Plan to be carried out every year during the formulation of annual plans.

F. ANIMAL HUSBANDRY

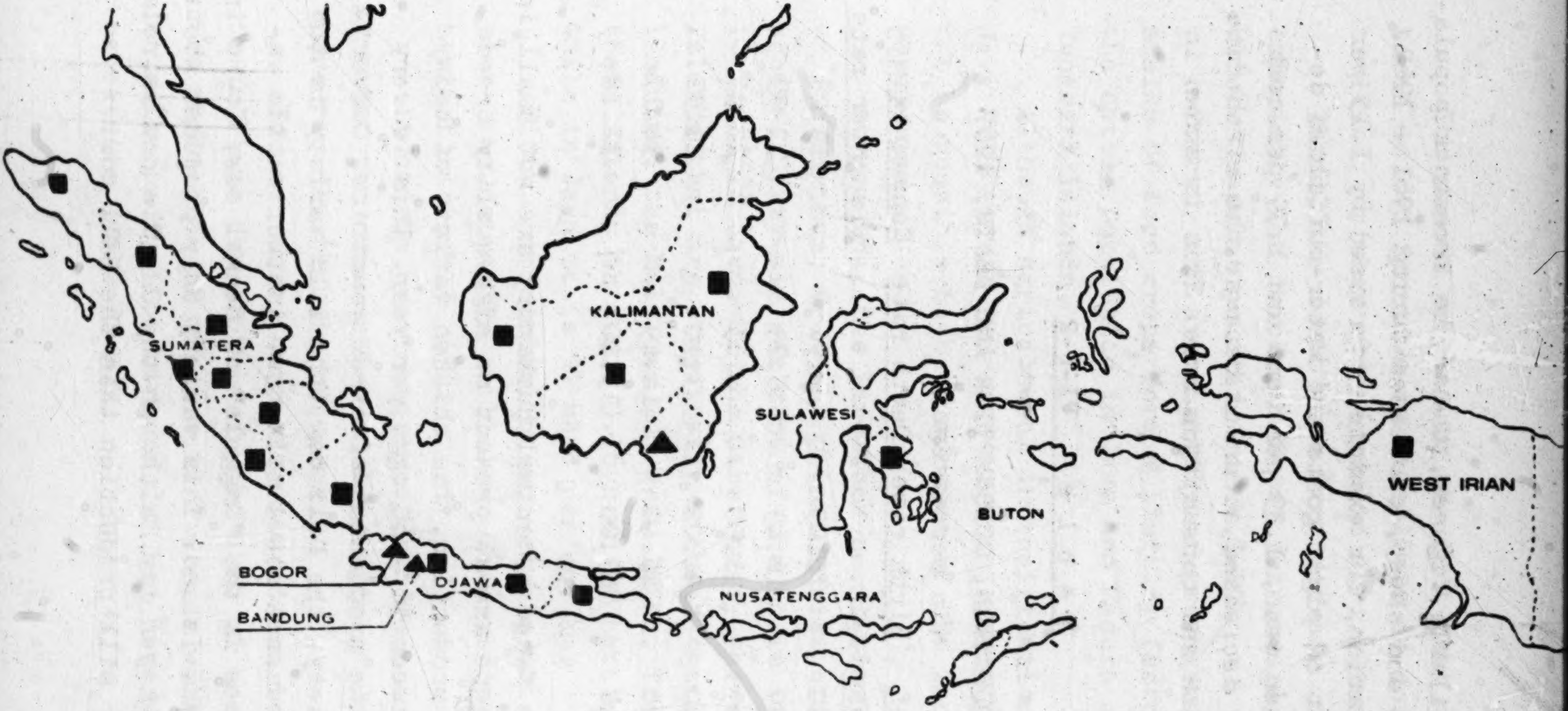
The products of animal husbandry such as milk, meat and eggs belong to a group of food having the highest nutritive value. They are the sources of animal protein which is needed in proper quantities to keep the body healthy. Apart from that, strong cattle are needed in yet another process of food production, namely in pulling the plow and harrow in tilling the land. It is estimated that about 15 per cent of the average cost of tilling ricefields is spent on the hire of oxen.

The number and kind of domestic livestock found in Indonesia are shown in Table VI-F-1.

Table VI-F-1

NUMBER AND KIND OF LIVESTOCK IN INDONESIA, 1967
(in million head)

Kind	Java	Outside Java	Total
Cows	4.60	2.24	6.84
Water Buffaloes	1.50	1.26	2.76
Horses	0.16	0.46	0.52
Pigs	0.16	2.40	2.56
Goats	5.50	1.63	7.13
Sheep	3.52	0.17	3.69
Chickens	41.27	23.57	64.84


SUMATERA
KALIMANTAN
SULAWESI
BUTON
WEST IRIAN
BOGOR
BANDUNG
DJAWA
NUSATENGGARA

■ INCREASE OF PRODUCTION AND PROCESSING OF WOOD PRODUCTS AND TIMBER

▲ DEVELOPMENT OF WOOD PRODUCTS

SUB SECTOR: FORESTRY

INCREASE OF PRODUCTION AND PROCESSING OF WOOD PRODUCTS

Based on available figures, the whole livestock population, except cows and sheep, decreased during 1961 - 1967. The chicken population, for example, decreased by 1.15 per cent, whereas that of pigs, goats and water-buffaloes decreased by 3.16 per cent, 1.89 per cent and 1.79 per cent respectively. The decreased occurred because the birth rate was below the death and consumption rate. This is shown in Table VI-F-2.

Table VI-F-2

RATE OF PRODUCTION, CONSUMPTION AND DEATH, 1967

(in percentages)

Kind of Livestock	Rate of Increase	Birth rate	Death rate	Consumption - Slaughter rate
Cows	+ 0.80	16.05	1.97	13.28
Buffaloes	- 1.79	16.43	5.23	12.99
Goats	- 1.89	31.00	4.03	28.86
Sheep	+ 0.40	24.02	3.10	20.52
Pigs	- 3.16	45.40	14.49	34.17
Chickens	- 1.18	63.00	33.00	31.18

The problems faced by animal husbandry are not small in number. First, there are at present no high-quality breeds for egg and milk production. The chicken variety of today only produces between 56 - 60 eggs per year. This is very low compared to the production of other countries. Our original cattle variety, the Bali cow (the wild variety is the banteng), is in essence not a milk-cow. Another cattle variety we now posses is the "Onggole" or Bengal cow, found in East-Java and Sumba Island. This variety only produces about 1-3 litres of milk per day, although the Onggole cow is relatively better for milk production than the Bali cow.

The second problem is the fact that our credit institutions do not function as stimulants to animal husbandry activities, as they already do to agricultural activities.

Third, the death rate from disease is relatively high, especially for chickens. Every year nearly a third of our chicken population dies from N.C.D.

Fourth, the availability of grass and the leaves and stalks of food crops form a limiting factor for expansion of the cattle population in Java and Madura and on the Nusa Tenggara islands.

Although agricultural intensification efforts in East Java will indeed increase vegetable crop production, it will not be possible to keep abreast of the increase in levestock population.

At present, the livestock population in Java has reached its maximum, from the point of view of cattle fodder stocks. Sixty-six per cent of the whole livestock population is found in Java. On the other hand, there are regions or islands that are practically without cattle, for example Kalimantan, the Moluccas and West Irian. The cattle density of these islands is about 0.16 head of cattle per sq. km., while in Java it is 59 head per sq. km.

Fifth, production incentives are not large enough because the demand is still low. This, in turn, is because capital is weak.

It can be predicted that with successful economic development the consumption of livestock produce will increase more rapidly than in the past.

To meet this increasing demand and in line with efforts to increase the protein in the diet of the Indonesian people, the production of milk, meat and eggs will be increased.

The production targets for the five years to come can be seen in Table VI-F-3.

To achieve these objectives and keeping in mind the main problem described above, the following measures and policies will be taken. First, efforts will be made to bring about operational harmony which includes integration and synchronisation between livestock protection, eradication of diseases, provision of high-quality breeds, improvement and expansion of credit facilities and efficient information service. These efforts will be made through a Bimas Animal Husbandry program.

The first prerequisite is vaccines against S.E., Anthrax (Miltvuur) and NCD. The production of these vaccines will be accelerated to meet the increasing demand. It is hoped that through this program death among the livestock, especially chickens, will decrease.

High-quality breeds of chickens and milk cows must still be imported during the first four years. The dispersion of these high quality breeds will be carried out through programs of intensified (Bimas) animal husbandry.

The activities of animal husbandry research institutions will be aimed at the development of high-quality breeds in order to stop import. In addition, research work will be aimed at the production of vaccines which are better cheaper, and stronger than the old ones.

Apart from this, a feasibility study will be made of the production of antibiotics and of better methods for the prevention and eradication of livestock diseases.

Another research activity will be the collection of basic data on cattle raising to be used as a basis for further planning. A study will also be made of crossbreeding Indonesian with imported livestock.

Livestock production will be accelerated by giving sufficient incentives to entrepreneurs by broadening the domestic markets and export opportunities with improvements in the infrastructure, inter-insular livestock trade is expected to expand, and with better harbors and better communication with the livestock market in foreign countries, exports will increase.

In this matter, private middlemen will be invited to take part in livestock production. This invitation will be accompanied by guidance and other facilities.

Furthermore, it is planned to move livestock from dense- to sparcely-populated areas by the development of livestock breeding estates in the last mentioned areas and supplying the necessary facilities.

To develop skill in this field, education in animal husbandry will be intensified while workers and officials will be given regular upgrading courses.

The budget for this program of increasing production in the field of animal husbandry is estimated at ten billion rupiah in five years and 245 million rupiah for 1969 - 1970. This program can be divided into projects as follows :

1. The Marketing and Processing Project
2. The Medical and Industrial Instrument Project
3. The Livestock Protection Project
4. The Intensified Livestock Raising Project
5. The Project for the Guidance of Private Livestock Entrepreneurs
6. The Livestock Disease Research Project
7. The Animal Husbandry Research Project

For each project preparations should be made based on exact research and calculations. If one project turns out to be unjustified, then that project will certainly be dropped. In this connection, the role of surveys and research is very important as they will become the basis for the annual adjustment of the Five-Year Development Plan and for the drawing up of the annual plans.

Table VI-F-3

ESTIMATES OF PRODUCTION OF MEAT, EGGS AND MILK
1969 -- 1973
(millions of Kg.)

Year	Meat	Eggs	Milk	Total
1968/69	56.64	4.37	1.94	62.97
1969/70	64.34	4.69	2.04	75.80
1970/71	79.25	6.55	2.53	88.33
1971/72	85.13	9.55	3.29	99.57
1972/73	94.41	12.07	4.77	111.25
1973/74	107.90	15.12	5.09	134.81

G. IRRIGATION *)

The most productive method of agriculture is that which makes use of irrigation water. Thus in order to increase productivity in the agricultural sector it is imperative to have a quick, regular and adequate supply of water.

Agricultural land in Indonesia may be classified into various categories. The most important are rice fields with technical irrigation, semi-technical irrigation, simple irrigation, rice fields with seasonal rain, and dry fields. Rice fields with technical irrigation include a total area of 1.7 million hectares, while those with semi-technical and with simple irrigation occupy a total area of respectively 760,000 hectares and 1.3 million hectares. Rice fields with seasonal rain are estimated to cover 1.2 million hectares.

Among the large diversity of irrigation systems the most productive ones are those systems with technical, semi-technical and simple irrigation. In the time past there was a drop in the productivity of irrigated land. This is evidenced by the slow increase in per hectare rice yield. As far as is known, during the last 15 years the average production increased by only 0.4 per cent annually. Although there are other factors to which this slow rate of progress can be ascribed, the primary factor is deterioration in the system of irrigation. This can also be seen in the acreage of harvested areas of rice in Java, which showed a drop of 0.4 per cent a year. This is an indication that irrigated land, once grown with rice, has gradually made way for other dry field crops, which need a smaller amount of water than rice. The acreage of dry crop harvests has increased by 2 to

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*) The term "Irrigation" implies also efforts to control floods and regulate the flow of water in swamp areas.

3 per cent a year.

The decline in the irrigation system is due to many factors, primarily the absence of maintenance during the past years. This in turn was caused by inadequate means of finance and by lack of interest and awareness on the part of the government leadership. This kind of mismanagement has resulted in most of the primary and secondary channels becoming shallow and damaged and has brought about substantial deterioration in water works. These damages represent obstacles to the channels which function as conveyors of water to rice fields and to discharge channels.

These imperfections have resulted in a drop of 50 per cent of the normal capacity of the channels, and a loss of water two or three times what it usually would be. This has led to a decline in the acreage of rice fields with regular irrigation. On the other hand, in the rainy season an increasingly larger acreage of rice fields has become subject of floods, because of the shallowness of primary channels and damages in water works. In addition, farmers have become more reluctant to maintain tertiary channels, which intensifies the negative effects described above.

The productivity of the irrigation system is also lowered by erosion, i.e., the loss of fertile soil in the irrigated regions or in the catchment areas swept away by rain water falling in the mountain slopes. Erosion makes rivers shallow and causes floods during the rainy season. It is caused by nothing less than the laying bare of protective forests by irresponsible elements. Moreover, dredging has stopped altogether during the last ten to fifteen years, so that the shallowness of rivers and channels has reached the maximum point. It is estimated that in order to return rivers and channels to their normal condition some 60 million cubic metres of silt must be removed.

Until now, water management falls within the responsibility of many agencies. This has resulted in ineffectiveness in the maintenance of irrigation. Also efforts at expansion have met with a great many obstacles owing to the diversity of opinions and efforts endorsed by authorized agencies.

On considering the above-mentioned problems, the Five-Year Development Plan endeavours to endorse large-scale rehabilitation of the irrigation system, the control of erosion and floods, and improvement in water management. Furthermore, in an effort to tackle the food problem and to increase productivity of the agricultural sector an expansion of the irrigation network will be endorsed.

The rehabilitation of the irrigation system has a target of 830,000 hectares, while the expansion of technical irrigation will cover an area of 430,000 hectares. If these targets are reached, the acreage of technically irrigated rice fields will increase to 2.1 million hectares, while monsoon rain irrigated fields will decrease to 1 million hectares. In order to reach the target of rice production of 1973/74 the rehabilitation and expansion of the irrigation system must have been completed by the end of 1972, so that the fields can produce in the rainy season of 1972/73.

In the control of erosion, efforts will be made in reforestation, the prevention of wild felling of forests, the growing of soil protectors that can prevent erosion in critical areas, contour farming, and the erection of constructions to prevent erosion, such as check-dams, consolidation dams, etc. In the efforts to control floods, the improvements and regulation of rivers will also be attempted.

In order to arrive at more efficient water management only one agency will be appointed to take charge of this matter, i.e., the Directorate General of Irrigation of the

Department of Public Works and Energy. It goes without saying that this sole agency must consult with users of water, with the relevant villages concerned with the regulation of tertiary networks and with those agencies in charge of cultural-technical education. In this way, more efficient use of water can be secured in line with the system of planting.

As to the absence of maintenance and the slow progress of expansion, this is caused by incongruency in the system of finance. The Government will draw a financial policy, in which both the central and the local governments will finance the development of new projects and the rehabilitation of the irrigation system. But the cost of maintenance and exploitation must, for the most part, be borne by that section of society which obtains the benefits and results of the irrigation network built at government expense. Tertiary channels must be built at the expense of the rice field owners who are to obtain water, except for those tertiary constructions, in which erection or rehabilitation will be too costly. In this instance the Government will assist in the financing. The construction of an irrigation network that extends over a not too large area (less than 500 hectares) and that has a local impact (usually called the village irrigation system) will have to be financed by the regional government, whenever necessary, with the aid of the central government limited to technical aid from relevant agencies.

Other efforts to be endorsed by the Five-Year Development Plan include the rehabilitation of research and planning apparatus in the field of irrigation. The aim is to increase the ability of the apparatus concerned to prepare and implement sound projects by providing the necessary data.

In implementing irrigation projects, primarily in the rehabilitation of the irrigation system, especially in densely populated areas, full use will be made of labor intensive projects. This will not only lessen the cost of financing, but will also provide wide employment opportunities.

In order to achieve the above-mentioned goals, activities can be grouped into programs which include the program of land and water conservation, a river rehabilitation and control program, an irrigation rehabilitation program, a program for irrigation expansion, and a program of water works construction.

Each program will be divided into projects as stated in Table VI-G-1. For the respective projects the necessary preparations have to be made on the basis of research and accurate calculations. It is obvious that, if one or another project appears to be difficult to justify, the project or projects in question will not be implemented. In this context the role of surveys and research is of paramount importance and they will constitute a basis for readjustments in the Five-Year Development Plan which will be made each year, and for the drafting of annual plans.

The budget to defray the costs of these programs will amount to Rp. 236 billion for the five-year period. For 1969/70 this will be Rp. 25.9 billion.

1. The Program for the Conservation of Soil and Water

The primary objective of this program is the prevention of the destruction of soil and water by floods, the prevention of erosion, and the rehabilitation of bare land by reforestation and the growing of vegetation.

Based on available reports, empty land belonging to the forest area in 1964 occupied an area of 441,000 hectares in Java and 14 million hectares outside Java. It may be assumed that this acreage is larger than in 1968. The vast extent of this bare land is caused by its being stripped of its forests, wild grazing, and deliberate burning of forests.

Table VI-G-1

IRRIGATION PROJECTS

The Soil and Water Conservation Program	The Program for the Rehabilitation and Control of Rivers	The Program for the Rehabilitation of Irrigation	The Irrigation Expansion Program	Other Irrigation Development Programs
The Reforestation Project, the Project for the Rehabilitation of the Forest Areas of Gunung Agung and Gunung Kidul, the Project for the Rehabilitation of Forests in the river basins of Brantas, Bengawan Solo and Madiun, the Rehabilitation Project for River Basins and Critical Soils, the Project on the Influence of Dry Agriculture on Soil and Water.		The Rentang Project, the Tjisedane Project, The East Semarang Project, the Way Seputih Project, the Gambirsari and Pasanggrahan Project, the Brantas Delta Project, the Karanganjar Project and other Rehabilitation Projects spread all over Indonesia.	The Krueng Djrue Project, the Krueng Baro Project, the Punggur Utara Project, the Djatiluhur Project, the Tadjum Project, the Sempor Project, the Kelara Project, the Sadang Project, the Gumbasan Project, the Dumaga Project, the Palasari Project, the Kalibawang Project, the Way Djepara Project, the Way Umpu Project, the Way Panggubuan Project, the Air Beliti Project, the Sampean Baru Project, the Teluk Lada Project, the Tjiletuh Project, the Tjipamingkis Project, the Tjikunten II Project, the Pemali Tjomal Project, the Tjiudjung Project, the Tjidurian Project.	The Ebb and Flow Irrigation Project, the Kali Brantas Multipurpose Project, the Swamp Area (Non-Ebb and Flow) Reclamation Project, the Project on the Survey and Planning of River Land Reclamation, the River Land Reclamation Project, the Reclamation Projects of the rivers Bengawan Solo, Tjitanduj and Luwu, the Project on the Rehabilitation of the Condition of Lakes, the Project on the Rehabilitation of Natural Disaster Stricken Areas and the Prevention of Natural Disasters, the Project on Dredging and the Rehabilitation of Dredgers, the Project on Topographical Measuring and Irrigation Planning, the Project on Flood Control in Djakarta-Raya.

Bare land, particularly in the hilly regions, is a direct cause of natural disasters such as floods, erosion and the drying up of water springs.

This must not be allowed to continue, because it endangers efforts for increasing productivity in the agricultural sector. Therefore, during the first stage of the implementation of the Five-Year Development Plan, steps will be taken to grow vegetation with priority to be given to the critical areas, such as the river basins of the Brantas, Bengawan Solo, Madiun, and other rivers.

In order to achieve the optimum degree of efficiency, rehabilitation is needed in the infrastructure of these activities, which include official retention of the state forests and a survey to determine the effect of dry field agriculture on soil and springs.

The implementation of this program needs an estimated finance of seven billion rupiah within a period of five years and 435 million rupiah for 1969/1970. The program may be divided into projects, among which are:

1. the Reforestation Project,
2. the Project on the Rehabilitation of Forests on the slopes of Gunung Agung and in the Gunung Kidul Area,
3. the Project for the Rehabilitation of the Forest Area of the River Basins of Brantas, Bengawan Solo and Madiun,
4. the Project for the Rehabilitation of other river basins and critical land,
5. the Project on the Influence of Dry Fields on Soil and Water Systems.

2. The Program for the Rehabilitation and Control of Rivers

The aim of this program is the control and prevention of floods. This can be achieved by improving dikes, not only by improving their shape and construction, but also their position. Then there are efforts to make short-cuts to eliminate meanders, so that water can flow more swiftly. In order to accelerate the flow of water through outlets and water currents, and thus to prevent its damming up it is planned to rehabilitate estuaries of rivers by dredging.

The above-mentioned efforts are necessary, because the situation of rivers, particularly in Java, is at present very dangerous. Moreover, flood regulating constructions no longer correspond to the present-day situation of the rivers. Along with the above efforts erosion prevention and control measures will be undertaken on a large scale through the growing of vegetation on bare land. So long as we have no absolute control over the primary causes of floods, efforts will be confined to mitigating floods or to containing them in as limited areas as possible.

During the next five years, efforts in this field will put more emphasis on the critical areas. The budget for the next five years is estimated at Rp. 20 billion. Part of this will be supplied in the form of foreign exchange. In 1969 a fund of Rp. 1.6 billion will be provided from the development budget.

3. The Irrigation Rehabilitation Program

In order to ensure the success of efforts to increase the production of rice the irrigation network must be completely functioning and efficient. As is already known, the irrigation network is, at present, in a very deplorable state. In the past such a situation constituted the most serious obstacle to any effort to boost production.

Primary, secondary and tertiary channels and water works will be rehabilitated so that they can function normally. During the first stage, rehabilitation will involve

250,000 hectares of rice fields with semi-technical irrigation and 500,000 hectares with technical irrigation. The work must be finished before the end of 1972, so that the rice fields can be utilized for production during the rainy season of 1972/1973.

Along with this work of rehabilitation a change will be made in the water management system, as has been explained earlier, in order to enable continuous maintenance and to secure efficient exploitation and use of water.

The finance needed to achieve this target at the end of the Five-Year Developement Plan will be Rp. 70 billion. For the fiscal year 1969/70 a budget of Rp. 7.6 billion is set aside. Part of the funds is to be supplied in foreign exchange.

This program can be divided into various projects, among which are:

1) the Rentang Project,
2) the Tjisadane Project,
3) the Semarang Timur Project,
4) the Way Seputih Project,
5) the Gambarsari and Pasanggrahan Project,
6) the Brantas Delta Project,
7) the Karanganjar Project,
8) other rehabilitation projects throughout Indonesia.

4. The Irrigation Expansion Program

As is already known, there are 1.7 million hectares of monsoon rain rice fields throughout Indonesia. These fields have a low productivity campared with technically irrigated fields.

The average yield of monsoon rain rice fields is 32 per cent of that of technically irrigated fields. For that reason a conversion of seasonal rain fields into technically irrigated fields will directly increase their productivity. It is planned that 150,000 hectares of such seasonal rain rice fields will be transformed into technically irrigated ones.

Besides the seasonal rain rice fields there is another kind of agricultural land consisting of dry areas, which for the most part are outside the island of Java. In certain areas irrigation channels can be constructed easily and quickly, e.g. in Lampung, South Sumatra, North Sulawesi, and South Sulawesi. The expansion of the irrigation system in Lampung will assist new settlers in their efforts to augment production. In the first phase an irrigation network of 280,000 hectares will be constructed.

Thus this project will end up with 430,000 hectares of rice fields to be technically irrigated. In order to achieve the 1973/74 production target, as outlined above, the work must be completed in 1972, so that the rice fields will be ready for growing in the rainy season of 1972/73.

The costs involved during the five years of development will amount to Rp. 60 billion. For 1969 a fund of Rp. 7.2 billion will be provided. Other costs are to be defrayed by foreign exchange.

The irrigation expansion program can be divided into a number of projects, which will include:

1. the Krueng Djrue Project (Atjeh),
2. the Krueng Baro Project (Atjeh),
3. the Punggur Utara Project (Lampung),
4. the Djatiluhur Project (West Java),
5. the Tadjum Project (Central Java),
6. the Sempor Project (Central Java),
7. the Kelara Project (South Sulawesi),
8. the Sadang Project (South Sulawesi),
9. the Gumbasa Project (Central Sulawesi),

10. the Dumoga Project (North Sulawesi),
11. the Palasari Project (Bali),
12. the Kali Bawang Project (Jogjakarta),
13. the Way Djepara Project (Lampung),
14. the Way Umpu Project (Lampung),
15. the Way Punggubuan Project (Lampung),
16. the Air Beliti Project (South Sumatra),
17. the Sampean Baru Project (East Java),
18. the Teluk Lada Project (West Java),
19. the Tjiletuh Project (West Java),
20. the Tjipamingkis Project (West Java),
21. the Tjikuntan II Project (West Java),
22. the Pemali-Tjomal Project (Central Java),
23. the Tjiudjung Project (West Java),
24. the Tjidurian Project (West Java).

5. Other Irrigation Development Programs

In addition to the above-mentioned programs there are irrigation development programs, which include expansion of tidal irrigation, the development of irrigation in swampy, non-tidal areas, the repair of damage caused by natural disasters and the prevention of such disasters, the rehabilitation of the condition of lakes, the expansion of river-irrigated areas, the rehabilitation and expansion of dredging and dredgers, and migration that supports the development of irrigation systems.

The cost of this program is estimated at Rp. 77 billion for the next five years and to Rp. 9.1 billion in 1969/70. Part of the funds are to be supplied in foreign exchange. The program can be divided into projects, which among other things include the following:

5.1 The Tidal Drainage Project

For more than 40 years the people of South Kalimantan, Central Kalimantan and Djambi have opened up tidal rice fields, which have yielded fairly satisfactory results. With the aid of the Government and with more modern equipment the South Kalimantan area today produces a surplus of rice. Attracted by these convincing results the people of South Sumatra have started growing in tidal rice fields.

According to estimates, the swamp areas in the entire archipelago include a total acreage of 34 million hectares spread over Sumatra, Kalimantan and West Irian.
Out of this total, 12 million hectares can be converted into tidal fields. Until now, the total acreage of tidal fields in South Kalimantan, Central Kalimantan, Djambi and South Sumatra has been 70,000 hectares. Such fields are usually obtained by connecting two or more rivers, which are flowing in a more or less parallel direction, by carving out main channels 12.5 metres wide and 4 metres deep. Each kilometre of the main channel with two kilometres of secondary channels makes possible the opening up of 1,000 hectares of rice fields.

The primary obstacle in the implementation of this project is a shortage of farmers to clear the land. This difficulty can be overcome by mechanization of the process of the clearing of land, so that every hectare of rice field only a small number of farmers is required.

Besides rendering assistance in solving the food problem, the opening of ebb and flow lands will also help with the population problem in Java.

Success in this project will attract more people from Java into those areas. At present a survey is being conducted to determine the most suitable location and the best way of attacking the problem.

5.2 The Multi-purpose Project of Kali Brantas

The Brantas river is one of the largest in Java running a distance of 330 kilometres in East Java and having a water basin of about 12,000 square kilometres. Each year it inundates vast areas, including towns.

This is, among other things, because the river Brantas is such a shallow river that it is not able to carry accumulated rain water in the rainy season. This shallowness of the Brantas river is caused by sand sediments which have originated in eruptions of Mount Kelud and from soil erosion.

Besides controlling floods this project is also aimed at providing irrigation for the surrounding areas, an opportunity for the development of land fishery, energy for the generation of electric power, and recreation for the people.

In the field of irrigation this project includes the construction of dams, tunnels, check-dams, irrigation networks, etc., on either side of the Brantas river, and the vulcanic activities of Mount Kelud. Sub-projects now at a stage of implementation include the Karang Kates Dam, the Seloredjo Dam and the sub-project for the control of floods in Tulung Agung by diverting the flow to the Indian Ocean. The last mentioned sub-project is almost completed.

Projects now at a planning stage are the Kali Porong Project (which includes the Lengkong Dam and the dredging of the river bed), the project for the control and arrest of sand in Kali Badak and Kali Putih, the Welingi Dam Project, and the Sand Diversion Project of Lodojo.

In the Five-Year Development Plan it is intended to finish the Karang Kates Dam in 1971, the Seloredjo Dam in 1970 and the entire South Tulung Agung Project. In the meantime a start will be made on the construction of the Kali Porong Sub-Project and the Welingi Sub-Project.

5.3 The Project on the Reclamation of Swamp Areas (non-ebb and flow areas)

This project is aimed at putting to use the swamp areas that cover one fifth of all Indonesian territory. By the use of land reclamation techniques a fairly large acreage of agricultural land will be gained, the production of which will help solve the problem of food and population. Also network of canals can be used for water traffic and water transportation.

In the first phase of the Five-Year Development Plan only the Alabio Project (in South Kalimantan) and the Kutaaren Project (in Central Kalimantan), the implementation of which was started several years ago, will be completed. These projects constitute full-technical polders.

Besides the above-mentioned projects, the work on non-full technical polders will be continued, such as those in Sisir Gunting in South Sumatra and Ogan Karamasan in South Sumatra and the Polder Project of Mentaren in Central Kalimantan.

5.4 The Project for the Survey and Planning of Land Reclamation of River Areas

The purpose of this project is to draw a Master Plan of well-synchronized and well-coordinated efforts for reclamation of river land. In order to achieve this goal, a period of preparation will be needed that will be from 1969 till 1973 for the carrying out of surveys and the drafting of plans, during which period data will be collected and analysed and plans drawn up. The areas to be surveyed within these five years will be Lampung, Tjimanuk, Djratuseluna, South Kedu, Kali Progo, Bali, Lombok, and Barito.

5.5 The Project for Land Reclamation on the River Areas of Bengawan Solo, Tjitanduj and Luwu

The aim of this project is to save these areas from the danger of floods, to store enough water for the dry season, to technically improve the irrigation system for 130,000 hectares of rice fields, and to rehabilitate the drainage of low-lying areas.

5.6 The Project for the Rehabilitation of the Condition of Lakes

Within this project fall the rehabilitation of Lake Tempe and Lake Rawapening. Its aim is to prevent floods and to increase the capacity of Rawapening to serve as a reservoir in order to ensure a larger supply of irrigation water. Within the next five years, attempts will be directed toward the development of outlet rivers and the deepening of the lake beds.

5.7 The Project for the Rehabilitation and the Control of Natural Disasters

This project is aimed at containing the damages caused by eruptions of the volcanoes Mount Kelud, Mount Merapi and Mount Agung.

In 1966 and 1968 there were volcanic eruptions that were directly responsible for social and economic losses. In order to minimize the damage and to guard against such eruptions check dams and sand bag banks have been built. Work that remains to be done is the construction of the Salam Dam in Djatitengger and the lava dike of Kali Putih.

Dikes will be built to protect the town of Muntilan from lava currents from Mount Merapi. Also efforts will be made to complete the removal of sand deposits that endanger the surrounding rice fields. The aftermath of the eruption of Mount Agung in 1968 is still being felt in the sector of irrigation. Rehabilitation and improvement of the irrigation system will be carried out.

5.8 The Dredging and Dredgers Rehabilitation Project

In order to carry out continuous and efficient dredging of rivers, canals, and lakes at the most economical cost a dredging fleet is needed. This aim will be approached in the first stage by the rehabilitation of existing dredgers.

5.9 The Topographical Measurement and Irrigation Planning Project

For planning of irrigation topographical data are of very great importance. Up to the present time such data are still not, or not sufficiently, available. The aim of this project is to supplement the needed materials.

5.10 The Flood Control Project for Greater Djakarta

For scores of years Djakarta has been suffering from periodic floods an inundations. The project's goal is maintaining and improving the city's infra-structure, maintaining the population's health, preventing material losses, and increasing the number of recreation sites around water reservoirs. In order to achieve this aim a fund of Rp. 2.4 billion is needed. For 1969/70 Rp. 600 million will be provided to finance the project.

Table VI-2

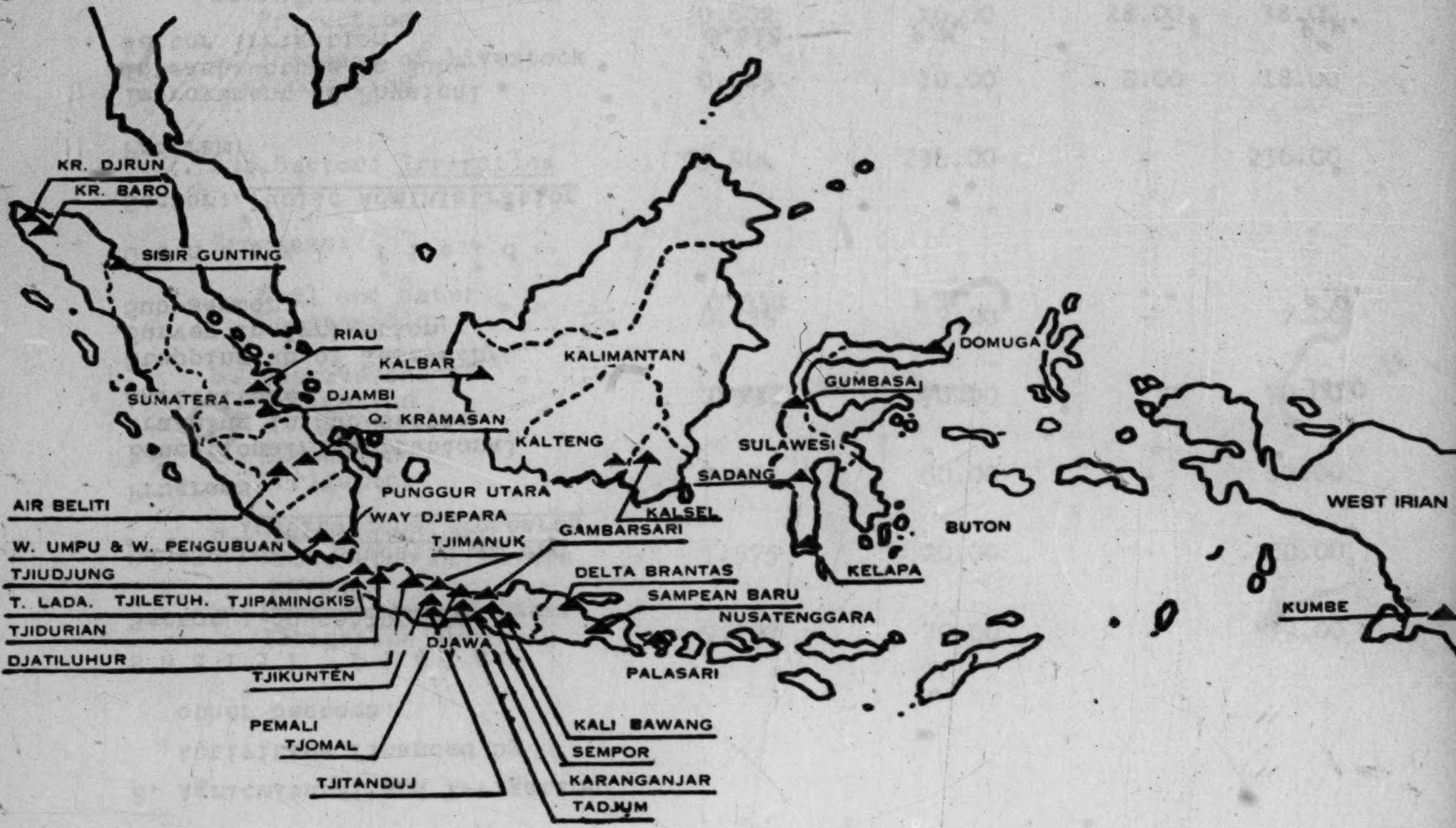
FINANCING OF THE FIVE-YEAR DEVELOPMENT PLAN, 1969/70 - 1973/74
AGRICULTURE AND IRRIGATION

(in billion of rupiah)

Field/Sector/Sub-Sector/Program	1969/70	1969/70 - 1973/74		
	Development Budget	Development Budget	Other sources	Total
(1)	(2)	(3)	(4)	(5)
Economic field				
A. Sector: Agriculture and Irrigation	35.132	319.00	76.00	395.00
1. Sub-Sector: Agriculture	9.228	83.00	76.00	159.00
Programs:				
a. Increase of Foodstuff Production	2.929	30.00	10.00	40.00
b. Increase of Estate Production	4.924	23.00	18.00	41.00
c. Increase of Fisheries Production	0.528	10.00	12.00	22.00

(1)	(2)	(3)	(4)	(5)
d. Increase of Forest Production	0.602	10.00	28.00	38.00
e. Increase of Livestock Production	0.245	10.00	8.00	18.00
2. Sub.Sector: Irrigation	25.904	236.00	-	236.00
Programs:				
a. Soil and Water Conservation	0.435	7.00	-	7.00
b. Improvement of Irrigation	7.592	70.00		70.00
c. Expansion of Irrigation	7.192	60.00	-	60.00
d. Improvement and Protection of Rivers	1.575	20.00	-	20.00
e. Development of Other Irrigation Works	9.107	79.00	-	79.00

(1)	(2)	(3)	(4)	(5)
B. Agricultural and Irrigation Activities financed by other Sectors.				
Social field				
Sector : Education and Culture				
Sub-Sector : Educational and Institutional Research				
Programs:				
Educational/Institutional Training in Sub-sector Agriculture	0.419	3.40	-	3.40
Stepping Up of Research/ Survey in Irrigation Sub-sector	0.070	P.M.	-	P.M.
General field				
Sector: Public Administration				
Program:				
Improvement of Physical Infrastructure in Sub-Sector Irrigation	0.418	P.M.	-	P.M.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KR. BARO
SISIR GUNTING
RIAU
KALBAR
DJAMBI
SUMATERA
O. KRAMASAN
KALTENG
KALIMANTAN
PUNGGUR UTARA
WAY DJEPARA
AIR BELITI
W. UMPU & W. PENGUBUAN
TJIUDJUNG
T. LADA. TJILETUH. TJIPAMINGKIS
TJIDURIAN
DJATILUHUR
TJIKUNTEN
PEMALI
TJOMAL
TJITANDUJ
TJIMANUK
DJAWA
KALSEL
GAMBARSARI
DELTA BRANTAS
SAMPEAN BARU
NUSATENGGARA
PALASARI
KALI BAWANG
SEMPOR
KARANGANJAR
TADJUM
SADANG
SULAWESI
GUMBASA
DOMUGA
BUTON
KELAPA
WEST IRIAN
KUMBE

▲ IRRIGATION PROJECTS

SUB SECTOR: IRRIGATIO

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TABLE OF CONTENTS

VOLUME II-B

PRESIDENTIAL DECISION No. 319/1968

FIVE-YEAR DEVELOPMENT PLAN 1969/70 - 1973/74: CONTENTS OF COMPLETE SERIES

Chapter VII: INDUSTRY, MINING AND ELECTRIC POWER 1

A. INDUSTRY 1

1. The Condition of Industry and Its Problems 1
2. Policies and Measures for Developing Industry 4
3. Fertilizer, Cement and Chemical Industries 12
4. Textile Industry 24
5. Pulp, Paper and Printing Industries 34
6. Pharmaceutical Industry 41
7. Light and Cottage Industries 42
8. Metal, Machinery, Equipment and Infrastructure Industries 43

B. MINING 48
- 1. Situation and Problems 48
  - Introduction 48
  - 1.1 Oil and Natural Gas 48
  - 1.2 Tin 49
  - 1.3 Bauxite 50
  - 1.4 Nickel 50
  - 1.5 Gold and Silver 50
  - 1.6 Manganese 51
  - 1.7 Sulphur 51
  - 1.8 Diamonds 51
  - 1.9 Coal 52
- 2. Policies and Measures 52
  - 2.1 Expansion and Development 52
  - 2.2 Exploration and Research 53
  - 2.3 Training 54
  - 2.4 Joint Enterprises and Foreign Capital Investment 55
  - 2.5 Oil and Natural Gas 56
  - 2.6 Tin 60
  - 2.7 Bauxite 61
  - 2.8 Nickel 62
  - 2.9 Gold and Silver 62
  - 2.10 Sulphur 63
  - 2.11 Coal 63

C. ELECTRIC POWER 69
- 1. Situation and Problems 69
- 2. Development Policy and Measures 71
  - 2.1 Rehabilitation and Expansion of Electricity Transmission and Distr. Networks 78

2.2 Rehabilitation and Construction of Power Plants 79
a. The Asahan Hydro-Electric Power Plant (East Sumatra) 80
b. The Batang-Agam Hydro-Electric Power Plant (West Sumatra) 80
c. The Garung Hydro Power Plant (Central Java) 81
d. The Ngebel Hydro Power Plant (Central Java) 81
e. The Karangkates Hydro Power Plant (East Java) 81
f. The Seloredjo Hydro Power Plant (East Java) 82
g. The Riam-Kanan Hydro Power Plant (South Kalimantan) 82
h. The Tonsea-Lama Hydro Power Plant (North Sulawesi) 82
3. Construction of Isolated Power Plants 83
4. Institutional Improvement and Efficiency 84
5. Surveys, Feasibility Studies, Research, etc. 84

Chapter VIII: COMMUNICATIONS & TOURISM 89
A. COMMUNICATIONS 89
- Introduction 89
I. Development of the Land Transportation Sector 91
1. Roads 91
1.1 Situation and Problems 92

1.2 Policies and Measures 94
1.3 Development Targets and Locations 98
2. Main Road Transportation 98
2.1 Situation and Problems 99
2.2 Policies and Measures 100
2.3 Development Targets and Locations 100
II. River Transportation 102
1. Situation and Problems 102
2. Policies and Measures 103
3. Development Targets and Locations 104
III. Railway Transportation 104
1. Situation and Problems 104
2. Policies and Measures 105
3. Development Targets and Locations 107
3.1 The Target... 107
3.2 The rehabilitation... 108
3.3 Signals, Telecommunication and Electronics 108
3.4 Ferry Service 111
3.5 Replacement and Renovation of Rolling Stock 111
3.6 Improvement in Supplies and Logistics 111
3.7 Personnel 111
IV. Development of the Sea-Communications Sector 113
1. Commercial Fleet 113
1.1 Situation and Problems 113
1.2 Policies and Measures 115

1.3 Development Targets and Locations 117
- a. Inter-island Shipping Fleet 117
- b. Ocean-going Fleet 119
- c. Local Shipping Fleet 120
- d. Tramp and Tugboat Service 120
- e. Sailing Vessels 120

V. Harbors and Other Infrastructure 121
- 1. Situation and Problems 121
- 2. Policies and Measures 122
- 3. Development Targets and Locations 124
  - 3.1 Port Facilities 124
  - 3.2 Navigation Safety Facilities 125

VI. Air Communications 135
- 1. Airport and Other Facilities 135
  - 1.1 Situation and Problems 135
    - 1.1.1 Airstrips 135
    - 1.1.2 Airport Facilities 135
      - a. b. c. d. e.
    - 1.1.3 Other Facilities 137
      - a. b. c. d. e.
  - 1.2 Policies and Measures 139
  - 1.3 Development Targets and Locations 139
    - 1.3.1 Airports 139
    - 1.3.2 Training 140
    - 1.3.3 Agricultural Meteorology 140
    - 1.3.4 Geophysics 140

VII. The Commercial Air Fleet 148
  1. Situation and Problems 148
  2. Policies and Measures 149
  3. Development Targets and Locations 150
VIII. Postal and Telecommunication 151
  1. Postal and Money Clearing Services 151
    1.1 Situation and Problems 151
    1.2 Policies and Measures 152
    1.3 Development Targets and Locations 152
  2. Telecommunication 156
    2.1 Situation and Problems 156
    2.2 Policies and Measures 157
    2.3 Development Targets and Locations 158
      2.3.1 Targets 158
      2.3.2 Location of Development Projects 159
B. TOURISM 168
  - Introduction 168
  1. Situation and Problems 168
  2. Policies 171
  3. Measures 172
  Appendix I
  (Breakdown of Projects) 174

LIST OF TABLES

VII-A- 1 : Production Targets for Domestic Industry 8
VII-A- 2 : Investment Program for Industry 10
VII-A- 3 : Fertilizer Production 15
VII-A- 4 : Investment Program for the Fertilizer Industry 17
VII-A- 5 : Cement Production 20
VII-A- 6 : Development of the Cement Industry 20
VII-A- 7 : Investment Program of the Cement Industry 21
VII-A- 8 : Textile Production 29
VII-A- 9 : Value of Textile Production 31
VII-A-10 : Requirements of Raw Cotton and Yarn for the Textile Industry 32
VII-A-11 : Investment Program for the Textile Industry 33
VII-A-12 : Paper Production 37
VII-A-13 : Development of the Paper Industry 38
VII-A-14 : Investment Program of the Paper Industry 39
VII-A-15 : Program to Increase Cottage Industry 44
VII-B- 1 : Production of Crude Oil 58
VII-B- 2 : Tin Production (concentrated) 61
VII-B- 3 : Bauxite Production 62
VII-B- 4 : Production of Gold and Silver 63
VII : Financing the Five-Year Development Plan Industry and Mining 66
VII-C- 1 : Financing of the Five-Year Development Plan in the Power Sector 87
VIII-B- 1 : Rehabilitation/Improvement Plan of State and Provincial Roads and Bridges 96
VIII-B- 2 : Railway Network Rehabilitation Plan 109
VIII-B- 3 : Replacement/Expansion Program of the Railway's Rolling Stock 110

VIII-C- 1 : Rehabilitation/Replacement Plan for the Commercial Shipping Fleet 118
VIII-C- 2 : Development of Ports and Other Infrastructure 128
VIII-D- 1 : Air Transport Infrastructure Development Plan 140
VIII-E- 1 : Expansion/Development Plan of the Post and Postal Money Services 154
VIII-E- 2 : Plan of New Telephones Installations 161
VIII-F- 1 : Financing of the Five-Year Development Plan: Communications and Tourism 165

LIST OF GRAPHS, CHARTS AND MAPS

- Production of Cement Industry 22
- (Map) Sub-sector Industry: Cement and Fertilizer 23
- Production of Textile Industry 30
- (Map) Sub-sector Industry: Paper Industry 40
- (Map) Sub-sector Mining: Tin, Nickel, Bauxite, Sulphur, Oil and Natural Gas 64
- (Map) Sub-sector Mining: Oil and Natural Gas 65
- (Map) Sub-sector Electric Power 88
- (Map) Sub-sector Communications: Railways 112
- (Map) Sub-sector Communications: Sea Communication (Dredging Silt Backlog, Rehabilitation/Increase of Facilities, Salvage of Wrecks) 132
- (Map) Sub-sector Communications: Sea Communication (Rehabilitation/Replacement/Increase of Sea Telecommunication) 133
- (Map) Sub-sector Communications: Sea Communication (Rehabilitation/Increase of Terminal Facilities, Quay, Warehouse, Electric Supply, Water, Loading & Unloading Equipment) 134
- (Map) Sub-sector Communications: Air Communication (Rehabilitation/Upgrading/Expansion of Air Strips and Airport Facilities) 147

- Plan for Increasing/Addition of Telephones 162
- Plan for the Addition/Construction of Post Offices 163
- (Map) Sub-sector Communications: Post and Telecommunication (Micro Wave Transmission, Tropo Scatter, Radio/VHF) 164
- (Map 1) Tourism: Regions to be Developed 177
- (Map 2) Tourism: Air Communication 178
- (Map 3) Tourism: Pattern of Growth in Tourism 179
- (Map 4) Tourism: Upgrading of Roads, Bridges etc. 180

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PRESIDENTIAL DECISION No. 319
OF THE YEAR 1968
CONCERNING
THE FIVE-YEAR DEVELOPMENT PLAN

THE PRESIDENT OF THE REPUBLIC OF INDONESIA

Considering : 1. that it is the aim of struggle of the New Order to raise the standard of living of the People of Indonesia, which aim can only be achieved by carrying out development by stages and according to plan;

2. that the results which have been achieved under the program of political and economic stabilization, have at present become a basis for the implementation of development which is strong enough;

3. that based on MPRS Decree No. XLI/MPRS/1968, the task of composing and implementing the Five-Year Development constitutes one of the duties of the Development Cabinet;

4. that the Government has, at present, succeeded in composing the Five-Year Development Plan 1969-1973, which will become a basis and guide for the Government in carrying out above-mentioned MPRS Decree from year to year;
5. that based on above-mentioned considerations, it is deemed necessary to issue a Presidential Decision to authorise the Five-Year Development Plan 1969-1973;

Having in mind : 1. Article 4 (clause 1) of the 1945 Constitution;
2. MPRS Decree No. XLI/MPRS/1968;
3. Presidential Decision No. 183 of the year 1968;

Having heard : The considerations of the National Development Planning Board and deliberations during sessions of Cabinet;

HEREBY DECIDES

To enact : A DECISION OF THE PRESIDENT OF THE REPUBLIC OF INDONESIA CONCERNING THE FIVE-YEAR DEVELOPMENT PLAN 1969-1973:

Article 1

The Five-Year Development Plan as contained in Volume I, II and III of the annex to this Presidential Decision constitutes a basis and guide for the Government for the implementation of the Five-Year Development as has been char-

ged by MPRS.

Article 2

Implementation policies of the Five-Year Development Plan will be molded into Annual Plans which are reflected in State Budget and other policies.

Article 3

The molding into Annual Plans as meant in Article 2 of this Presidential Decision, is carried out while considering possibilities for changes and developments in the situation which necessitate adjustments of the Five-Year Development Plan.

Article 4

This Presidential Decision comes into force on the day of enactment.

Enacted in Djakarta,
On the Thirtieth Day of December 1968.

PRESIDENT
OF THE REPUBLIC OF INDONESIA
(sgd.)
SOEHARTO
General of the TNI

FIVE-YEAR DEVELOPMENT PLAN
1969/70 -- 1973/74

CONTENTS OF COMPLETE SERIES

VOLUME ONE
General

Chapter I : Aim, Target and Policy
Chapter II : Financing the Plan
Chapter III : International Balance of Payments
Chapter IV : Regional and Rural Development
Chapter V : Government Administration, Plan Implementation and Annual Operational Plan

VOLUME TWO-A
Plan According To Fields

Chapter VI : Agriculture and Irrigation

VOLUME TWO-B

Chapter VII : Industry, Mining and Electric Power
Chapter VIII: Communications and Tourism

VOLUME TWO-C

Chapter IX : Religion
Chapter X : Education and Manpower
Chapter XI : Health and Family Planning
Chapter XII : Housing and Social Welfare

Chapter XIII: Justice and Information
Chapter XIV : Transmigration and Cooperatives
Chapter XV : Defence and National Security
Chapter XVI : Research and Statistical Development

VOLUME THREE

Specification According To Regions

****

CHAPTER VII

INDUSTRY, MINING AND ELECTRIC POWER

A. INDUSTRY

Although agriculture is the activity emphasized in the Five-Year Development Plan, the industrial sector will not be neglected. Our long-term objective is to build an economic structure in which agriculture, industry and services are balanced.

In order to attain this long-term objective, the process of development must take place gradually. At present emphasis is placed primarily on agriculture. This means that the industrial sector must become the supporting sector and a stimulant to agricultural development. At the same time preparations are being made to develop industry more extensively in the future.

1. The Condition of Industry and Its Problems

Indonesia's economic structure has been imbalanced toward agriculture for too long. Industry provided only a small contribution to national production, and industrial activities have been declining for years. Several factors had caused this decline. In 1960, many industrial enterprises were taken over from their original owners, thus causing an exodus of managers and foreign skilled labor. The Government began to interfere increasingly in various economic activities. Industrial enterprises were dependent on government rationing of foreign exchange to meet their demands for raw materials, spare parts, and equipment. Freedom to make managerial decisions became more restricted. Distribution and trade were separated from production. Thus, marketing was excluded from the management of production. Manpower could not be utilized in accordance with economic criteria and politics dominated industry.

Meanwhile, from 1961 until 1966 the inflation rate accelerated. Long-term activities were obscured by short-term activity. Consequently, investment was decreasing and moved out of industry into speculation. The industries which enjoyed government foreign exchange rationing seemed to develop more rapidly but their growth was artificial as their production costs were inaccurately accounted.

The production cost showed an improper growth. Because of inflation, wages in the form of rice, etc. became more important. As wages in the form of natural goods were based on the number of family members and not on the level of productivity, this wage system could not stimulate production. Productivity was continuously declining while production costs were dependent upon the price of rice.

In an inflation economy, depreciation no longer followed proper criteria. The regulations in force did not base the method of depreciation on "replacement value" but rather on "historical value". Thus depreciation funds diminished and they were insufficient to replace obsolete equipment. On the other hand, the diminishing depreciation funds showed a large but artificial "profit" in the accounting record. Meanwhile, the collection of illegal funds and other contributions undermined the companies' financial situation and, as a result, they did not have adequate funds for rehabilitation and working capital destruction took place.

Inflation had also caused neglect of infrastructure. The cost of transportation soared resulting in reduced marketing opportunities. Industrial enterprises were forced to conduct their business on a small scale and therefore worked inefficiently.

Another factor was the provision of electrical power. Its exploitation and maintenance costs were very high and there was no guarantee of sufficient and uninterrupted supply. Thus a large number of industries chose to provide their own electric power which resulted in higher overhead costs.

The majority of industries did not replace their production equipment on any regular basis. New and worn-out equipment were used simultaneously. This also attributed to high costs.

Many industrial enterprises were inappropriately located. Frequently their raw materials and marketing were too remote. In many cases locations were chosen on the basis of political rather than economic considerations.

In addition, there were some non-economic factors affecting industrial activities. Industries were frequently regarded as social institutions for the retired.

In the 1961-1966 period, Indonesia's economy was cut off from proper relations with the world economy. It could not keep up with the rapid technological developments abroad, so that the process of industrial development was hampered.

During the 1966-1968 period, Indonesia's economy underwent essential changes : inflation, which formerly was rampaging, was brought under control by economic stabilization policies. The economic situation which had been oriented toward inflation since 1961 began to adjust itself. This transitional process was not without disruptions, sometimes giving the impression that the economy was stagnating.

The process of industrial rehabilitation was gradually carried forward. The enterprises which had been taken over by the previous administration were returned to their rightful owners. Foreign and domestic private capital were encouraged to participate in new investment by advantageous provisions and regulations. The right to fully manage one's own enterprise or activity was re-instituted. Economic principles, "cost-accounting" calculation, mechanism of prices and rational economic calculation were once more applied. The Government's excessive control was gradually diminishing.

Taxation policies and import duties were adjusted in such a way as to protect domestic industry. Likewise, bank credit policy moved toward a selective policy to stimulate production.

Industrial development has not been fully rehabilitated despite significant measures taken by the Government. Nevertheless, it is now possible to concentrate activities more on the restoration and growth of Indonesia's economy in general and industrial development in particular, as control of inflation has brought favorable results.

2. Policies and Measures for Developing Industry

Policies and measures for developing industry must be based on the main targets of the Five-Year Development Plan. The targets for developing industry must support these main targets.

It is expected that the increase of value of production by the end of 1973/74 will be at least 90 per cent compared with the production value at the beginning of the Five-Year

Development Plan. The increase will be accomplished by rehabilitation, new investment and the expansion of production capacity. Consequently, industrial growth is divided into two stages : the 1969/70-1970/71 period will be the phase of rehabilitating and promoting the utilization of capacity, followed by the 1971/72-1973/74 period in which efforts will be directed toward expansion and development of industry.

In the first two years of the Five-Year Development Plan, pre-investment studies will be conducted, e.g., surveys, feasibility studies, and the like, which are necessary for the expansion and development of industry to be carried out in the following three years. This phasing, however, does not preclude the establishment of new industries in the first two-year period, provided the required preparations have been completed.

Taking into account the existing limiting factors -- i.e., the availability of skilled labor and capital -- and considering its function in achieving the major objectives of the Five-Year Development Plan, the development of industry will emphasize the following :

(1) industries which support and complement the agricultural sector by producing equipment required in agriculture or in processing agricultural produce;
(2) industries earning foreign exchange or saving on foreign exchange by producing import substituting commodities;
(3) industries processing large quantities of domestic raw materials;
(4) industries which utilize relatively more manpower than capital; and
(5) industries which by their cumulative effect, promote regional development efforts.

This classification of industries is not complete. Moreover, it does not imply that other industries not included are without importance. At our present stage of development, high priority will be given to the industries which are included in the classification.

The first classification, i.e. industries which support agriculture, is based on the rationale that economic development in Indonesia is initiated through development in the agricultural sector. The development of agriculture needs raw materials and processing of agricultural produce. These requirements can be met by the industrial sector; therefore, agricultural development will encourage and stimulate the development of industry.

The second classification -- industries which earn and save foreign exchange -- is based on the serious shortage of foreign exchange in the Indonesian economy since so large a portion of foreign exchange must be used to repay foreign loans. Thus, any effort which increases or economizes on foreign exchange will be given the highest priority. Efforts to save foreign exchange will be implemented through the production of commodities which may substitute for imported goods. Such commodities obviously have a domestic market.

The third classification is based on the fact that Indonesia is richer in manpower than capital. Industries which employ more workers may be expanded easily and will in turn create more jobs. There may be certain industries which do not require a great deal of manpower. Nevertheless they need raw materials, the production of which requires a large number of workers. Such industries can be classified in this category.

The fourth classification is industries which process a comparatively large amount of domestic raw materials rather than materials from abroad. Emphasis will be on industries which yield a significant amount of "value added". The industries which require raw materials processed in other countries will merely complicate the international balance of payments. Naturally such industries will have no priority, and usually they need complex technology and skills.

The fifth classification is closely related to the fourth. The industries which stress the processing of domestic raw materials will automatically affect regional development. Therefore the development of those industries will stimulate and encourage regional development.

On the basis of the five classifications just described, particular attention will be focused on developing the following industries within the next five years:

(1) fertilizer, cement, and chemical industries;
(2) textile industry;
(3) pulp, paper, and printing industries;
(4) pharmaceutical industries;
(5) light and cottage industries;
(6) metal, machinery, equipment, and infrastructure industries.

The determination of the above priorities does not imply that other industries are without significance. A limited amount of capital and skilled labor has made it necessary to be selective and to set priorities. At present only the above industries will be given main attention. The development of other industries remains possible, depending upon the initiative and energy of private enterprise, and provided they conform to the regulations in force.
The targets for the respective industries are shown in Table VII-A-1.

In accordance with the priorities of the Five-Year Development Plan, fertilizer, cement and other chemical industries will grow tremendously. The development of these industries will support and encourage the development of agriculture.

Table VII-A-1

PRODUCTION TARGETS FOR DOMESTIC INDUSTRY
1969/70 -- 1973/74
(in billions of rupiah)

	1969/70	1973/74	Percentage Increase
1. Fertilizer, Cement and Chemical Industry	10,300	48,650	372.3
2. Textile Industry	30,000	90,000	200.0
3. Pulp, Paper and Printing Industry	11,200	20,860	86.3
4. Pharmaceutical Industry	5,250	7,350	40.0
5. Light and Cottage Industry	99,000	130,000	31.2
6. Metal, Machinery, Communication Equipment and Infrastructure Industry	25,000	48,000	92.0
Total	180,750	344,860	90.8

An investment program will be worked out to make possible increased production in the respective industries. The specific characteristics and condition of the respective branches of industry will be considered. The application of technology, the gestation period required, the level of productive capacity, the depreciation of equipment, etc., of each industry is different. As a consequence, the effect that units of investment will have upon the production increase will also vary. The increase of production for the fertilizer, cement and chemical industries shows the largest percentage.

In addition, the capacity of each industry to attract both domestic and foreign capital will also be considered. Because of its high profitability and expansion potential, the industrial sector has a sufficiently large attraction for private capital. Hence, efforts will be made to induce and encourage private capital to develop industry as far as possible.

Through various measures domestic and foreign private capital will be given a chance to play an important part in industrial development. If, after a certain period of time, no private capital is invested in a vital branch of industry, the Government will decide to make its own investment.

The investment program is given in Table VII-A-2. Its sources of financing come from the Government, banking funds and private capital. The last two sources will be relatively larger than the first. Nearly half of the total investment is in fertilizer, cement and chemical industries, followed by paper and printing, and textile industries.

In determining the investment program, the preparatory stage of a project is very important in every branch of industry. Development of a project should be preceded by pre-investment preparations, such as a survey, a feasibility

Table VII-A-2

INVESTMENT PROGRAM FOR INDUSTRY
1969/70 - 1973/74
(in billions of rupiah)

Industrial Sector	Development Budget	Other Sources	Total	Percentage
1. Fertilizers, Cement and Chemicals	39.28	75.14	114.42	45.65
2. Textiles	29.73	11.86	41.59	16.59
3. Pulp, Paper and Newsprint	23.35	18.70	42.05	16.78
4. Pharmaceuticals	---	3.70	3.70	1.48
5. Light Industry and Cottage Industry	7.50	17.50	25.00	9.97
6. Metal Industry, Machinery, Communication Equipment and Infrastructure	10.30	13.60	23.90	9.53
T o t a l	110.16	140.50	250.66	100.00

study, etc., so that investment may yield results. Whether or not an investment project will be implemented will depend on the results of these studies. As these preparations are necessary, investments in rehabilitation will give results much faster than new investments or investments for expansion.

As a result, industrial development is divided into two stages: the rehabilitation stage for the first two years and the expansion and development stage for the last three years of the Five-Year Development Plan period, so that preparation for the development of industrial projects is carried out thoroughly.

The investment program will serve as a guideline in outlining policies for the promotion of industrial development. Measures will be taken to modify and improve regulations pertaining to industrial enterprises, for example: Act No.19/1960, which hampers the activities of state enterprises. Sound economic principles must be practised in the state industrial enterprises. A state enterprise may no longer be viewed as a welfare institution in which retired civil servants are employed. Similarly, the appointment of the executive managers must be based on a "career system" and "merit system", while wage policies will be improved so as to promote industrial growth.

Regulations are to be stipulated for the revaluation of a company's capital, a basic review of the corporation laws which were inherited from the colonial period, a review of the legal status of state enterprises, development of industrial estates, and other measures which will promote better industrial growth. In building new industry guidelines will be laid down so that optimum design and quality products can truly be guaranteed.

Economic policy, while actively promoting industrial development, also covers policies related to duties, taxation and credits. The determination of import duties and the collection of tariffs will always take into account their impact on the growth of those industries which are given priority in the Five-Year Development Plan.

These principles will also be applied to the fiscal sector. The determination of corporation tax, profit tax, etc., will always take into account their respective influences on the growth of industry. The problems of depreciation as well as revaluation of assets on the basis of "replacement value" will be reviewed to stimulate reinvestment activities from internal financing.

Credits will be provided for working capital to finance investment in raw materials and in ready-made commodities, to purchase spare parts, etc. In addition, medium- and long-term credits will be granted for expansion, modernization and new construction. In this way credit, because of its selective nature, will become an instrument for promoting industrial growth.

The above policies are not entirely complete. The most important thing is to establish an investment climate favorable to industrial growth.

In the following pages, measures related to industries which will receive high priority in the next five years are discussed in detail.

3. Fertilizer, Cement, and Chemical Industries

As industries which support the agricultural sector, the roles of the fertilizer, cement and chemical industries are vital in Indonesia's economic development. In the Five-Year Development Plan, the construction and expansion of these industries will be given first consideration. Because Indonesia has abundant supplies of natural gas and crude oil the development of the fertilizer industry will be based on the maximum utilization of these raw materials for the production of nitrogen fertilizer. To keep production costs to a minimum, the technical and economic aspects of this industry must be considered carefully with investment in large and economical production units and modern processes adjusted to Indonesian conditions. In view of the capital-intensive nature of the fertilizer industry, foreign private capital investment will participate in its development. The Government, however, will make its own investment if investment by the private sector cannot quickly be realized. Considering the pressing need for foodstuffs, the Government's participation in increasing their production may be necessary.

Besides emphasizing nitrogen fertilizer production, other fertilizer industries will also be constructed, i.e., those using phosphate and kalium. This will be carried out through the processing of imported raw materials as well as through activities to find domestic sources of mineral phosphate and kalium. The new N-P-K substances can be utilized optimally for the agricultural sector.

It is planned to expand the fertilizer factory PN Pusri at Palembang with an economic unit which has an annual capacity of 300,000 tons, or approximately 300 per cent of current capacity. Thus the overall capacity will reach 400,000 tons a year. It is expected that Pusri II will be in production by 1972. Meanwhile, the petrochemical project at Gresik will be completed in 1970. It will produce 65,000 tons of urea fertilizer and 110,000 tons of ammonium sulphate fertilizer annually.

These two fertilizer factories are financed by government investment solely because of pragmatic considerations. As the demand for nitrogen fertilizer is much greater than that produced by Pusri I, Pusri II and PETROKIMIA Gresik, a new fertilizer factory is to be constructed at Djatibarang, West Java, utilizing natural gas as its raw material.

Within the first year of the Five-Year Development Plan a national survey will be conducted to study the capacity and type of production for a fertilizer factory.

On the basis of data about requirements, potential, and marketing, the production of fertilizer in West Java will be based on the N-P-K mixture. It is expected that the production of N will reach 272,000 tons annually, while the amount of P and K will be adjusted to the specific requirements of crops and soil. Efforts will be made so that by 1973/74 the fertilizer factory in West Java will reach 50% of its productive capacity or the equivalent of 136,000 tons of N. After the completion of the three nitrogen fertilizer factories, the output of N will reach 403,500 tons by the end of the Five-Year Development Plan which is about 80% of the demand for nitrogen fertilizer.

In producing phosphate fertilizer, the superphosphate project in Tjilatjap with its productive capacity of 100,000 tons of single superphosphate or 18,000 tons of P_2O_5 will be completed in 1970/71. This project is temporarily postponed at the moment. The possibilities of increasing phosphate fertilizer by producing double superphosphate and triple superphosphate is being studied. The petrochemical fertilizer project at Gresik will be directed toward the production of compound ammonium phosphate fertilizer to make the project more efficient, thus lowering fertilizer costs.

A general view of the fertilizer industry's development program and its production targets is presented in Table VII-A-3. Regarding nitrogen fertilizer, the projected production increase will be from 46,500 tons of N in 1969/70 to 403,500 tons in 1973/74, an increase of 768%. The production

Table VII-A-3

FERTILIZER PRODUCTION
1969/70 - 1973/74
(thousands of tons, billions of rupiahs)

	N	P	Value of Production
1968/69	46.5	---	2,695
1969/70	46.5	---	2,695
1970/71	88.5	18	5,145
1971/72	102.5	18	7,000
1972/73	267.5	18	16,555
1973/74	403.5	168	33,180

1968/69 Pusri = 46.5 N = 100,000 urea

1970/71 Gresik Petrochemicals = 56 N = 65 urea + 110 ZA or 45 urea 150 ZA

1971/72 Tjilatjap = 18 P = 100,000 Superphosphate
Pusri II 165 N = 330,000 urea

1972/73 136 P
1. Djatibarang = Compound fertilizer
136 N

2. Tjilatjap = 32 P = 100 D.S.

of phosphate fertilizer in 1973/74 will be 168,000 tons of P205. To attain these targets, approximately Rp.67.85 billion is needed and from this amount Rp.37.80 billion will be used to finance the fertilizer factories in West Java. See Table VII-A-4. The implementation of an investment project will depend on the result of a study. When a study indicates that a project cannot be justified from the technical as well as the economic point of view then, naturally,it will not be implemented.

Efforts will be continued to find raw materials required in fertilizer industries, particularly natural gas, petroleum, phosphate, kalium and sulphur, in an endeavour to increase fertilizer production.

As a result of a previous survey, it is planned to process sulphur sediment at Telagabodas, West Java. It is expected that the sulphur output will reach a sufficiently economic level of about 53,000 tons annually to meet the requirements of the fertilizer factories at Tjilatjap and Gresik. A reserve of sulphur, amounting to approximately 1,000,000 tons, has been discovered in West Java. In this connection, it is planned to construct a "pilot plant" to determine the method of processing and the type of factory which will be commercially feasible.

In addition to fertilizer industries, insecticide and pesticide factories will also be constructed to support the agricultural sector. These chemicals are vital in eradication of plant diseases. To seek the most effective insecticide, and to consider the possibility of its production using existing domestic raw materials, a survey and feasibility study will be conducted prior to undertaking production. The BHC and DDT insecticides might be suitable in this country and their raw material, originating from crude oil, is also available here.

Table VII-A-4

INVESTMENT PROGRAM FOR THE FERTILIZER INDUSTRY
1969/70 -- 1973/74
(in millions of rupiah)

	Loans with Lenient Terms	Foreign Capital Investment or Joint Venture
1969/70	2.63	---
1970/71	16.10	10.34
1971/72	11.14	22.68
1972/73	0.18	3.78
1973/74	---	---

Pusri : 26.65
Expansion of Gresik : 2.00
Completion of Tjilatjap: 1.40
Djatibarang : 37.80

While irrigation systems, dams, roads, housing and industry are being improved, the demand for cement will automatically increase. At present there are only three cement factories: Gresik, Indarung and Tonassa with respective rated capacities of 375,000 tons, 120,000 tons and 120,000 tons annually. This output is so far below what is required that cement still must be imported. The development of the cement industry deserves high priority because adequate raw materials are available domestically and because it supports the agriculture and infrastructure sectors. The condition of the economic infrastructure and transport facilities are of vital importance to the development of the cement industry because it produces "bulk mass production" and is commonly located far from road networks. Hence, the development of the cement industry must be coordinated with the program to rehabilitate the economic infrastructure.

By increasing the efficiency of the three factories, and expanding the productive capacity of the Gresik cement factory with a kiln which has a 125,000 ton capacity, and increasing the capacity of the Indarung cement factory, it is expected that the output of cement in 1971/72 will reach 850.000 tons.

In addition, a study is under way concerning the availability of raw materials in the Tjibinong area, West Java, in preparation for the construction of a cement factory which will have a 400,000 ton capacity. This factory will be constructed in 1970/71 and will begin production in 1972/73.

Another cement factory with an annual capacity of 400,000 tons will be constructed, the location of which has not been determined. Various possible locations are : North Sumatra (Bohorok, Atjeh), Central Java (Klaten, Pamotan), or West Java (Tjibadak). Accordingly, production will increase from 515,000 tons in 1968/69 to 1,650,000 annually in 1973/74.

A detailed description is presented in Table VII-A-6.

Table VII-A-7 shows the amount of investment required to achieve these targets. It has been estimated that $7.1 million and Rp. 1.4 billion are needed for the production increase of the Gresik and Padang cement factories and for the acquisition of equipment at Tonassa. The Tjibinong and other cement projects are expected to be financed by domestic and foreign private capital investments.

It is evident that the implementation or cancellation of a project is determined by the results of studies. The projects to be implemented are only those which can be technically and economically justified.

In the Five-Year Development Plan, the chemical industry, which is involved in the development of the industrial sector, will also be improved. Although the benefit cannot be felt directly by the public, its function as industrial infrastructure may assist the activities of light industries conducted in the provinces. As an import-substituting industry it saves foreign exchange. In the long run it may be possible to earn more foreign exchange through exports.

Included in this particular industry are salt, soda ash, caustic soda, aluminium sulphate, and petrochemicals such as polyethelene, polyvinylchloride, etc.

The quantity and quality of salt will be increased to meet domestic as well as foreign demand. Within the long-term program, industries using salt as a raw material will be established, such as soda ash and caustic soda which still have to be imported. Soda ash is very important in the glass industry, and caustic soda in the soap industry.

Aluminium sulphate is necessary for the purification of drinking water as well as for industrial needs. If the production of sulphuric acid at Tjilatjap and Gresik exceeds its target, an aluminium sulphate industry can be establish-

Table VII-A-5

CEMENT PRODUCTION
1968/69 - 1973/74
(in thousands of tons, billions of rupiah)

	Production	Percentage Increase	Value
1968/69	515	----	3.24
1969/70	600	16.5	3.78
1970/71	675	12.5	4.25
1971/72	850	25.9	5.35
1972/73	1250	47.1	7.37
1973/74	1650	32.0	10.33

Table VII-A-6

DEVELOPMENT OF THE CEMENT INDUSTRY
1968/69 -- 1973/74
(in thousands of tons)

	Gresik	Padang	Tonassa	Tjibinong	New Projects*
1968/69	375	120	20	---	---
1969/70	400	120	80	---	---
1970/71	400	175	100	---	---
1971/72	510	220	120	---	---
1972/73	510	220	120	400	---
1973/74	510	220	120	400	400

* Possible locations of the new projects: North Sumatera (Bohorok), Atjeh, Central Java (Klaten, Pamotan), West Java (Tjibadak).

Table VII-A-7

INVESTMENT PROGRAM OF THE CEMENT INDUSTRY
1969/70 - 1973/74
(in millions of rupiah)

	Loans with Lenient Terms	Foreign Capital Investment or Joint Venture
1969/70	1,926	2,760
1970/71	1,648	6,550
1971/72	320	7,950
1972/73	---	4,320
1973/74	---	---

Expansion of Gresik = 1,750
Addition of Tonassa = 87.5
Expansion of Padang = 700
Tjibinong Project = 8,050
New Project = 8,050

ed by using domestic bauxite.

Rubber for industrial purposes and export will be improved. In this case, surveys and studies will be made to find an effective method of processing. Consideration will be given to the development of complimentary industries. An overall survey will be made to find a stronger foundation for further development of petrochemical and chemical industries.

4. Textile Industry

The textile industry has a great potential for growth. It will be given priority as it employs a large number of workers and produces import substitutes.

At the moment an imbalance exists between the productive capacity of spinning mills and the textile industry's demand for yarn. Only half of the demand can be fulfilled by domestic yarn production.

It is planned that in the next five years, part of this deficiency will be eliminated. At the beginning, this objective will be achieved by rehabilitating the spinning mill industry. Today there are 14 spinning mills in operation. Another two projects (at Bekasi and Palembang) will be completed soon. The installed capacity amounts to 406,000 spindles but those currently in use amount to 334,000 or 82%. Because of inadequate funds and other causes during the period of development several years ago a rather extensive lapse of time occurred between the arrival of machines and their installation. As a result some of them were damaged or rusted or disappeared. Therefore some of the units installed were not operating efficiently.

Another factor which hampered full utilization of capacity was the lack of spare parts. In several factories the equipment was such that a disproportionate balance existed so that they did not yield the expected product mix. Institutional improvements might help to increase productive capacity in several other cases.

In addition, the average production of each spindle was low. To step up productivity the working hours will be increased. At present, the majority of spinning mills operate less than 120 hours a week. In several efficiently operating spinning mills the working hours exceed 6,000 hours per year. An increase in working hours will be sought for other spinning mills.

A significant increase in production will be attained through rehabilitation, stepping-up of efficiency, and additional working hours. In the first years emphasis will be placed on these three types of activities. In the second stage, balanced production will be attained through the expansion of existing factories and/or the establishment of new ones.

A feasibility study, however, must be conducted before this can be done. As capital is limited, both in the form of foreign exchange and Rupiah, an accurate survey will be carried out to secure the best possible results.

Domestic machinery and equipment industries have been able to produce and assemble the components of spinning machines. Such industries will be promoted. Besides expanding these industries such measures will also reduce the required total investment.

The weaving industry is faced with a different problem. Theoretically, the capacity of this industry is sufficient. In the past years, however, its facilities could not be fully utilized. The inadequacy of electricity and its high cost, the lower quality of the domestically produced yarn and unfavorable economic condition hampered the development of textile industries using mechanical weaving equipment, or

"ATM".

For one shift of 7 working hours, the ATM-1 is estimated to produce 20 meters and ATM-2 35 meters a day. With two shifts, the total annual production (300 days) will be 120 million meters for 10,000 ATM-1s, and 260.5 million meters for 12,400 ATM-2s, or 380 million meters altogether annually.

If the electric power supply is increased and its cost reduced, the total production will easily be increased to approximately 570 million meters and the production cost will be much lower.

The weaving industry's production, using relatively new equipment is generally below optimum. In some of the large factories, the equipment is not well arranged. The modernization of several weaving factories can increase production significantly.

Aside from factories which use mechanical weaving equipment (ATM) there are also factories which do not use mechanical weaving equipment (ATBM). The total number of the ATBMs registered is large, but some are not operating while some have never been used. One of the reasons is that some small factories were established only for obtaining rationed yarn. It has been judged that the ATBM can be maintained in the future, provided they produced only "sarung" with traditional patterns and artistic quality. There is also the possibility of producing raw textiles. ATBM cannot compete in the production of printed textiles.

The lack of working capital is a problem in the knitting, weaving, and spinning mills. The knitting industry is also facing other difficulties resulting from the low quality of domestically produced yarn and the lack of finishing facilities. Nevertheless, the knitting industry is generally in a better condition than other sectors of the textile industry.

In finishing, capacity is limited to bleaching, starching and calendering. Printing is not sufficiently developed. Approximately 80% of the capacity of the finishing industry is integrated with the weaving industry. Of the available facilities, only 80% is in operation. Compared with the weaving industry's capacity the available capacity of the finishing industry is still very inadequate. It is estimated that after rehabilitation the weaving industry's output cannot be fully used with the available capacity of the industry. Therefore, it is necessary to expand the finishing industry.

The total amount of textile production is about 300 million meters. It is planned to increase the total amount of production to 900 million meters within the next five years. To achieve this target, the above activities will be implemented.

Based on the above, the investment plan will include rehabilitation of the spinning and weaving industries, expansion of the spinning and finishing industries and modernization of the weaving industry.

Efforts will be made to finance the rehabilitation of the weaving, knitting, and finishing industries largely through private undertakings and will be carried out through group loans from foreign credits and through government participation capital from the banks. A number of foreign companies have expressed their intention to invest capital either directly or in the form of a joint venture to establish "integrated mills" or to modernize the existing textile industry.

To reach production targets, in addition to the above, the following prerequisites should be met : a favorable domestic climate for production, adequate raw materials and improvements of facilities, especially sufficient electric power at reasonable rates.

With regard to spinning mills, the amount of investment depends on how far it is desired to carry the use of yarn substitutes and the methods to be used. Without the above measures and without considering the spinning units at Bekasi and Palembang, the total investment for achieving full substitution will be high.

Through rehabilitation and by improving efficiency and increasing working hours, expanding the present units and producing the components of the spinning machines domestically, investment costs can be reduced significantly.

The rehabilitation of spinning mills will be implemented in the first years of the Five-Year Development Plan. It is estimated that the cost will amount to Rp.1.85 billion.

After the completion of the feasibility study, the expansion of 9 spinning units and the establishment of new projects can be implemented yielding additional capacities of 292,000 and 120,000 spindles. The targets are to be reached by 1972/73. The estimated investment is Rp. 21,976 billion, and the production of yarn substitutes will increase by approximately 50%.

If the production of components for the spinning units and their assembly can be carried out domestically, the use of foreign exchange for financing investments may decrease. Assistance will be given to domestically-made machinery.

A detailed description of investments for the spinning, weaving, finishing and knitting industries is presented in Table VII-A-11.

To reach the targets, the provision of raw materials is no less important. For this purpose, provision of adequate raw cotton and yarn is planned. In the meantime, the planting of cotton will also be seriously considered. Further-

Table VII-A-8

TEXTILE PRODUCTION
1968/69 -- 1973/74
(in millions of meters)

	Production	Percentage Increase
1968/69	300	----
1969/70	450	50.0
1970/71	575	27.7
1971/72	675	17.4
1972/73	775	14.8
1973/74	900	16.1

TEXTILE INDUSTRY PRODUCTION (MILLION METERS)

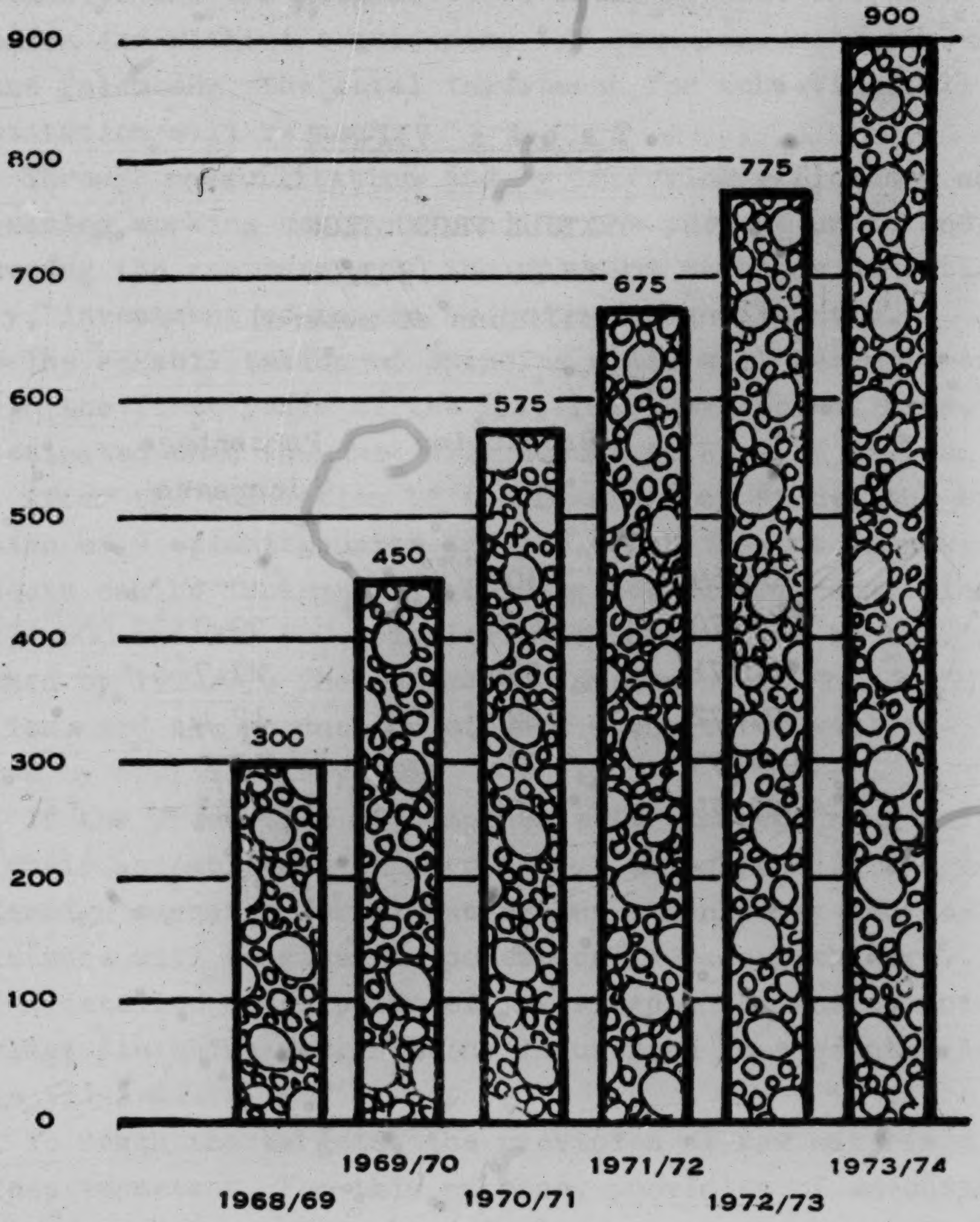


Table VII-A-9

VALUE OF TEXTILE PRODUCTION
1969/70 - 1973/74

(in millions of rupiah,
on the basis of 1 meter equals Rp. 100)

	Production	Percentage Increase
1969/70	45.0	----
1970/71	57.5	27.7
1971/72	67.5	17.4
1972/73	77.5	14.8
1973/74	90.0	16.1

Table VII-A-10

REQUIREMENTS OF RAW COTTON AND YARN FOR THE TEXTILE INDUSTRY
1969/70 -- 1973/74

(1,000 bales, 500 lbs/bale for raw cotton and
400 lbs/bale for yarn, in millions of rupiah)

	Raw Cotton		Imported Yarn (cotton + non-cotton)	
	Quantity	Value	Quantity	Value
1969/70	200	9.10	184	14.49
1970/71	260	11.83	206	16.21
1971/72	290	13.19	232	18.27
1972/73	340	15.47	262	20.65
1973/74	400	18.20	295	23.24

Note: The amounts include stocks.

Table VII-A-11

INVESTMENT PROGRAM FOR THE TEXTILE INDUSTRY
1969/70 - 1973/74
(in millions of rupiah)

	Loans with Lenient Terms	Banks	Foreign Capital Investment and Joint Venture
1969/1970			
Spinning	---	1,200	Integrated
Weaving	---	1,750	Textile Mill
Knitting	---	450	2,950
Finishing	---	450	
1970/1971			
Spinning	6,567	650	
Weaving	---	1,175	2,950
Knitting	---	450	
Finishing	---	900	
1971/1972			
Spinning	8,842	---	
Weaving	----	---	2,950
Knitting	---	---	
Finishing	---	900	
1972/1973			
Spinning	6,567	---	
Weaving	---	---	2,950
Knitting	---	---	
Finishing	---	900	

more, the development of petrochemical industries will also include the construction of factories which manufacture polyester materials for the textile industry.

5. Pulp, Paper and Printing Industries

The paper industry possesses characteristics which are particularly beneficial to economic development. This industry can produce substitutes for imports and thus save foreign exchange. In the long-run, it could even become an export industry. The paper industry requires a large number of workers and a great part of its raw material is available domestically. Its products, such as writing paper, cardboard printing paper and newsprint, serve as important goods for other activities, so that their multiple effect will be extensive. The paper industry will therefore be promoted.

At present, paper factories which are still producing are at Pematang Siantar, Padalarang, Blabak, Letjes and Goa. Two more factories, at Banjuwangi and Martapura, are under construction. The total production is approximately 10,000 tons annually, and the main product is writing paper. There are also privately-owned production units which generally produce cardboard and wrapping paper.

In general, production is below capacity. The causes are similar to those in other industrial sectors, i.e., the shortage of spare parts, raw materials and working capital. Other reasons are particularly related to factories, i.e., worn-out equipment, unfavorable locations, etc.

In the initial stage, production will be increased by a fuller utilization of capacity through rehabilitation and improvements -- technical as well as administrative -- in production methods. To facilitate the collection of rice stalks as raw material for several factories, equipment in the form of baling machines will be increased. Equipment which makes it possible to use the whole stalk is being installed in the Letjes project. If this project can be operated successfully, similar equipment will also be installed at Padalarang and Blabak to increase their production.

Particular difficulties are found at Goa, specifically the inadequate water supply and attention is being given to solving this problem. It also suffers from inadequate equipment for the collection of raw materials. At Pematang Siantar the question of water supply is being solved and electric power will be added. Meanwhile, working methods will be improved.

Within a short period the construction of the Banjuwangi project and the expansion of the Letjes project will be completed. In 1970/71, the Letjes project will receive extra equipment to produce an additional 3,000 tons of paper annually. Efforts will be made to iron out the problems of the paper project at Martapura which has been postponed for a long time.

Through rehabilitation and expansion, production will be increased by 122 per cent within the first two years of the Five-Year Development Plan.

Among the factories operating at present, only Pematang Siantar uses pine wood as a raw material. The others utilize rice stalk or bamboo. Given the advantages of using wood produce, the development of the paper industry will be geared toward a more extensive utilization of wood as its raw material. Economic benefits will accrue with the establishment of large units in the paper industry, as wood also occurs in quantity. Foreign investors are particularly interested in exploiting timber resources. Our problem now is to ensure that some of our timber be processed domestically while continuing exports.

At present, the major part of paper production in the country is writing paper and printing paper. Because of the growing demand for other types of paper, especially newsprint, the pattern of production will also be modified, so that the paper industry will keep its output consistent with demand. The wrapping paper industry (kraft) is also important because of the development of the fertilizer and cement industries. Wrapping paper is still imported to meet domestic demand, and in 1973 the annual requirement of this particular type of paper for the cement and fertilizer industries will have reached 20,000 tons a year. Thus the paper industry has a promising prospect. Studies are being conducted to compile the patterns for the nation-wide development of paper and other wood-using industries, including the extensive development of pulp and paper units. Forest openings will be closely integrated with investment in the paper industry or in other wood industries in such a way that a continuous supply of raw material may be secured and wood-produce industries can be maintained in a well-balanced and regular way. In addition to large pulp and paper industries, small paper industries will also be developed. The latter will be located in various regions and use pulp produced by the large units. The paper industry's development pattern still needs to be improved. Production targets and the growth of the paper industry in the next five years are described in Table VII-A-12 and Table VII-A-13.

An increase in paper production will affect other related activities. In this case the printing industry will receive special attention.

Population growth, the increase of students, the increase of literacy and the increase in the level of income will create the need for more reading material. The paper and printing industries have a strategic role in the provision of reading matter.

In the initial phase of development, the provision of spare parts and rehabilitation efforts will be given top priority. For this purpose financing will be secured through long- and medium-term bank credits. The availability of an extensive market for printed materials and the establishment of an atmosphere favorable to further development will serve as an attraction for private capital in this sector.

Table VII-A-12

PAPER PRODUCTION
1968/69 -- 1973/74
(in thousands of tons, billions of rupiah)

	Production	Percentage Increase	Value
1968/69	10	---	0.63
1969/70	16	60.0	1.09
1970/71	35.5	121.9	2.24
1971/72	46.5	30.9	3.14
1972/73	46.5	0.0	3.14
1973/74	166	258.1	10.49

Table VII-A-13

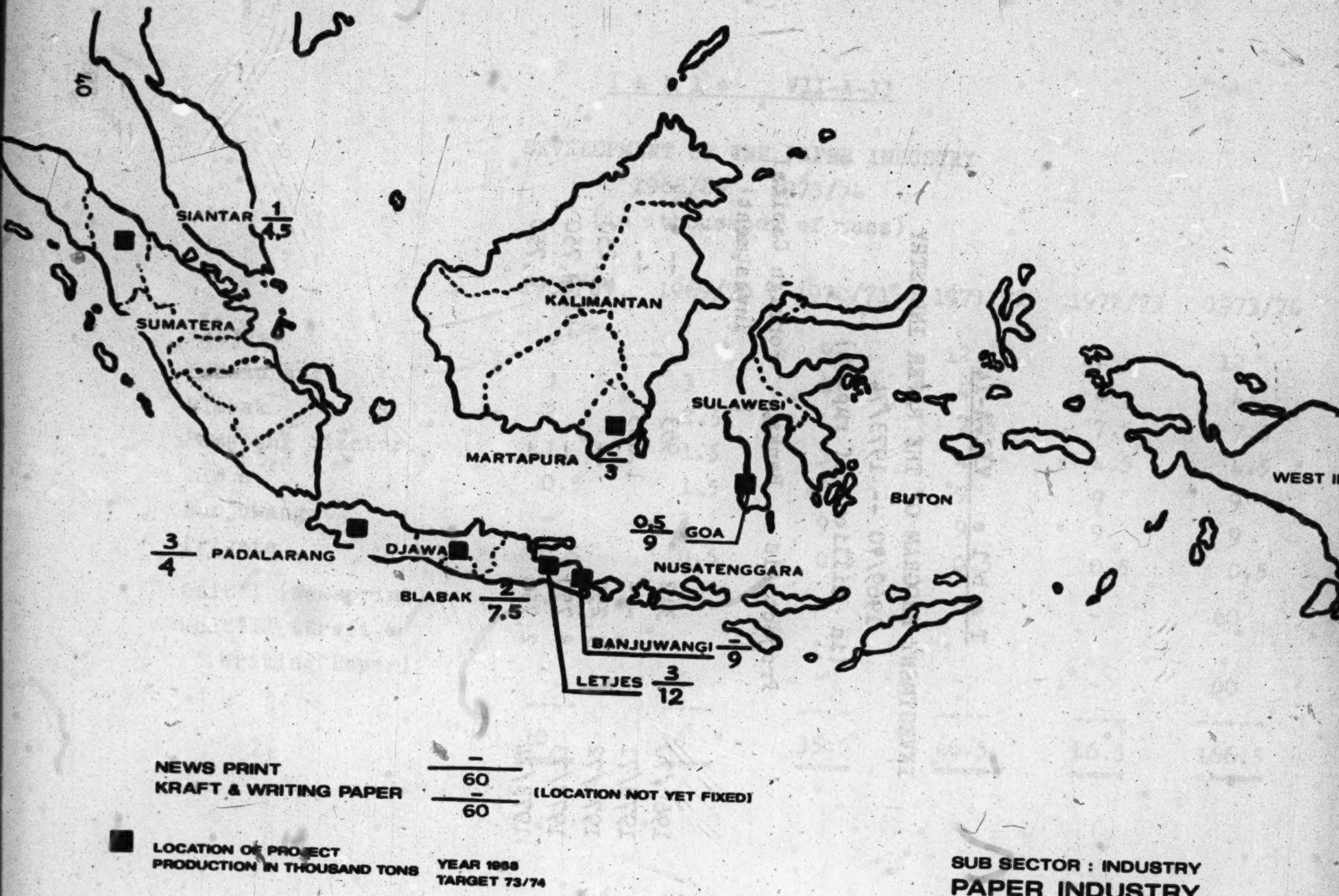
DEVELOPMENT OF THE PAPER INDUSTRY
1968/69 - 1973/74
(in thousands of tons)

	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74
Letjes	3	4	9	12	12	12
Padalarang	3	3	4	4	4	4
Blabak	2	2.5	4	7.5	7.5	7.5
Pematang Siantar	1	1.5	3	4.5	4.5	4.5
Gowa	0.5	1.5	6	9	9	9
Banjuwangi	-	3	9	9	9	9
Private	0.5	0.5	0.5	0.5	0.5	0.5
Unit I (Newsprint)	-	-	-	-	-	60
Unit II (Kraft & Writing Paper)	-	-	-	-	-	60
	10	16	35.5	46.5	46.5	166.5

Table VII-A-14

INVESTMENT PROGRAM OF THE PAPER INDUSTRY
1969/70 -- 1973/74
(in millions of rupiah)

	Project Aid	Banks	Foreign Capital Investment
1969/70	312	953	--
1970/71	---	1,085	--
1971/72	5,250	--	5,250
1972/73	8,750	--	8,750
1973/74	2,750	--	2,750


SIANTAR $\frac{1}{4.5}$
SUMATERA
KALIMANTAN
SULAWESI
MARTAPURA $\frac{-}{3}$
BUTON
WEST I
$\frac{0.5}{9}$ GOA
$\frac{3}{4}$ PADALARANG
DJAWA
NUSATENGGARA
BLABAK $\frac{2}{7.5}$
BANJUWANGI $\frac{-}{9}$
LETJES $\frac{3}{12}$
NEWS PRINT $\frac{-}{60}$
KRAFT & WRITING PAPER $\frac{-}{60}$ (LOCATION NOT YET FIXED)
■ LOCATION OF PROJECT
PRODUCTION IN THOUSAND TONS
YEAR 1968
TARGET 73/74

SUB SECTOR : INDUSTRY

PAPER INDUSTRY

6. Pharmaceutical Industry

There are approximately 140 pharmaceutical assembly factories which produce 50% of the required medicines, the rest being imported. The main characteristic of the pharmaceutical industry is that 90% of its raw materials must be imported. Domestic raw materials that can be used are limited to a few kinds, such as quinine, jodium, etc.

The problems faced in this sector do not differ from those of other industries, i.e. the shortage of spare parts and working capital, worn-out equipment in several assembly plants, etc. The marketing of supplies is not smooth, at present, because of the inadequacy -- and the complicated channels -- of distribution, which in turn push prices up excessively.

There has been no proper drug control nor intensive research. As a result, a large amount of domestic raw materials are not yet being used effectively. National and foreign private capital will be invited to participate in the development of this sector to increase the quantity and types of medicine.

Attempts will be made to induce foreign private enterprises to expand their pharmaceutical assembly plants into basic pharmaceutical plants producing medicines classified as "life-saving drugs", such as antibiotics, sulpha, acetosal, etc. In order to bring this service to the community more rapidly and reduce costs, efforts will be made to develop the distribution infrastructure by expanding the apparatus and by shortening the chain of distribution.

7. Light and Cottage Industry

In general, light industry is the largest industry in Indonesia, comprising approximately 20,000 manufacturers of various activities, such as food, beverages, cigarettes, wood, building material, basic necessities, etc. It is estimated that more than 50% of the entire industrial output is from light industry, which also provides extensive employment opportunities. Besides small manufacturers with fewer than 25 workers, there are also the large ones employing thousands of workers, e.g., cigarette, oil, and beverage manufacturers, etc. Another characteristic of light industry is that almost all enterprises are owned by the private sector.

The majority of manufacturers are operating below capacity. Again this is due to several problems, such as the shortage of capital, spare parts and technical know-how, and the low quality of their products. These factors have placed the enterprises in an unfavorable position relative to imported commodities. Improvement in the climate that would induce activities in this sector, through such measures as taxation policies, import policies which assist the growth of domestic industry and credit policies, will encourage an increase of production. The measures also include the abrogation of central and regional regulations which obstruct the growth of light industry. This sector of industry can improve rapidly through selective rehabilitation, expansion and new investment.

Several products of light industry, such as cigarettes, food, beverages etc., have already developed into export commodities. By improving their quality, other products may also become exportable.

In addition to selective rehabilitation, other leading projects will be established and implemented by industrialists. These activities do not preclude others. They merely give direction toward the development of industrial branches which provide support for attaining the main target of the Five-Year Development Plan. This is in conformity with the functions of the Government to guide and supervise the continuity of industrial development.

Another area worth noting is cottage industry which is generally operated on a small scale. There are many kinds of cottage industry. It is found throughout the country and is largely carried out as a supplementary activity employing small capital and modest equipment.

The growth of cottage industry will increase employment, promote the community's productivity and creative ability, increase income, and serve as an opportunity to manifest artistic instinct.

To accomplish the expected growth, measures will be taken to surmount the problems of a shortage of capital, and those connected with the provision of raw materials, marketing and organization.

Essentially, the approach to the improvement of the cottage industry is by giving guidance through the center of industries. The main industries to be emphasized are iron, wood, bamboo, and rattan.

For products from the cottage industries with artistic value measures will be taken to promote sales to tourists as well as to foreign countries. Table VII-A-15 presents the program for the increase in cottage industry.

8. Metal, Machinery, Equipment and Infrastructure Industries

These industries include the production of capital goods from various metals, ferrous or non-ferrous, such as

Table VII-A-15

PROGRAM TO INCREASE COTTAGE INDUSTRY
1969/70 -- 1973/74
(in millions of rupiah)

Activity	1969/70-1973/74
1. Centers of industries (iron, lumber, bamboo, processing of rattan, etc.)	794.1
2. Pilot projects in unproductive regions at Gunung, Eastern Nusa Tenggara etc. (ATBM, silkworms)	251.9
3. Increase in employment opportunities	700
4. Increase of industrial produce for export	460.2
5. Expansion of cottage industry	290

	2,496.2

sections, bars, wires, plates, sheets, pipes, equipment or spare parts for agricultural, industrial and infrastructure purposes, electric and non-electric machines for various uses, production as well as assembling of equipment for road construction, transportation and telecommunications. These industries are operated by state-owned enterprises (P.N. Barata, Boma, Metrika, etc.), the non-P.N. government production units (Pindad, etc.) and private enterprise.

Although there has been some improvement recently, the utilization of capacity for many enterprises is still low. This is caused by the same difficulties confronting other industries, i.e. shortage of electric power, obsolete machinery and equipment, shortage of working capital, unfavorable competition from imported commodities, shortage of technical know-how and skilled labor, the excessive number of unskilled workers, the low quality of products, etc. Production costs are kept high because electric power is insufficient and very expensive. In the Five-Year Development Plan, efforts will be made to increase electric supply which may eliminate this disadvantage.

In some state enterprises, equipment and machinery are almost fifty years old. Operating with obsolete equipment and outmoded designs is obviously disadvantageous. Several enterprises have already replaced their machines with new equipment but an overall improvement for the industry has not yet been carried out. To obtain funds for working capital and modernization, the Government will provide capital from banks, and the improvement of quality and production efficiency will be implemented through technical and managerial assistance.

Particularly in relation to machine and construction industries, which are generally operated on the basis of job orders and whose output includes diverse "industrial goods", the production and marketing program will be coordinated with the requirements of other industrial sectors and branches. The functions and duties of the state-owned machine and construction industries will be adjusted and integrated in accordance with the needs of other sectors in the Five-Year Development Plan. For this purpose, a common market will be organized which, aside from providing a market, would also give directions and guidance on the commodities required, the deficiences of products in the past, etc. Measures will be taken to combat the tendency on the part of the community and some government agencies to prefer imported goods.

The program for the metal, machinery and equipment industrial sectors will include the production of agricultural equipment (sprayers, water pumps, rice-processing machines, etc.), electrical equipment (switches, insulated electric wire, electromotors, etc.), and equipment for the textile industry, mining and infrastructure (wire, iron, hinges, bars, welding rods, galvanized black pipes, etc.). It is hoped that the industrial sector's potential will increase by 100% in five years.

The demand for industrial goods will expand with the growth of the consumption goods industry and gradually reach the stage of producing the spare parts, machines, etc., which are needed in the production of consumer goods.

The industries manufacturing equipment for land transportation will be consolidated and the import of vehicles will be limited. Special emphasis will be placed on the importation of commercial vehicles, such as buses and trucks, in C.K.D. form. The policy will be to develop assembly plants and to encourage the production of body parts and other spare parts. With the coordination of other machinery plants, a stronger basis can be established for the production of vehicles in the following Five-Year Development Plan.

Regarding the sea communication industry, emphasis will be placed on one important project which has already advanced sufficiently, rather than simultaneously engaging in several projects. In the air communication industry, for the time being emphasis will be placed on surveys which includes its facilities as well as the industry itself.

Such industrial development cannot be separated from the increasing number of technicians needed. Actually, industry can be developed quickly when the public has reached a certain level of technological inclination for participating in industrial growth.

At present, the Indonesian people are not very technically-minded. The patterns of an agricultural society are still inherent in the majority of the people. Educational policies which develop skilled labor and technical workers, and the development of industry using more advanced technology, will provide an opportunity to change and expand the way of life of the Indonesian people. A static way of thinking which is centered on agriculture could be transformed into a more dynamic attitude oriented towards modern technical progress.

The Five-Year Development Plan is not only concerned with investment. The development of industrial branches and investment activities depend, themselves, upon changes in society. Efforts to initiate these changes are essential in the development of small- and medium-industries. These changes are not only important for increasing production but also for initiating the transformation of a way of thinking and the inculcation of technical knowledge so that gradually technical progress can also be accepted. A more rapid transformation can only be brought about by community which understands the purpose of technical progress.

B. MINING

1. Situation and Problems

Introduction

Comparatively speaking, the contribution of mining to Indonesia's economy is not yet significant. Miners whose income is directly dependent on mining number only about 70,000.

One reason for this was the termination of a systematic general geological survey by the outbreak of World War II. Survey activities are conducted in a limited and restricted way in regions where they are directly related to certain projects. Thus there has been almost no new mining activity.

1.1 Oil and Natural Gas

The production of oil in Indonesia has shown a sudden increase. In 1967 its production was 186 million barrels, a 160% increase compared with the 1957 production. However, Indonesia's share of the world level of production has been decreasing. In 1957, 2% of the world's oil was produced in Indonesia; today Indonesia produces less than 1.5%.

Natural gas has not yet been well utilized. Its uses are limited to activities in crude oil production (increasing the well pressure, etc.) and where possible in refineries, especially for fuel. Since 1963, a small portion of natural gas has been used for the production of fertilizers. In 1967, only 5% of Indonesia's natural gas was used by a third party and the rest (47%) was lost or burnt, because it was considered uneconomical.

In general, within the last ten years, the condition of oil refining has not changed. In 1967, from 276,000 BBLD (70% state-owned) produced at Pangkalan Susu, Pladju, Sungai

Gerong, Wonokromo, Tjepu and Balikpapan, 70 million barrels, or 38% of Indonesia's total crude oil production was refined. The refineries themselves were not in full operation, i.e. only 77% of their capacity was being used and over 50% of their output was used domestically.

The uses of oil fuel over the last five years show an unstable development, i.e. a total increase of 40% occurred in the first 3 years while a decline occurred in the last 2 years. The increase of oil fuel was not attributed to an overall increase in demand but to its substitution for other fuel materials and an excessive increase in consumption.

In 1967, 60% of the total amount of crude oil refined (or 42 million barrels) was transported by ship tankers. 98% of these ship tankers were chartered from foreign countries. For domestic fuel oil supply, 27 million barrels are required. For their transportation, the Government already has direct control of 78% of the required ship tankers. State-owned tankers have a capacity of 180,000 DWT. In addition, 70,000 DWT is under lease. These vessels are used both domestically and for export purposes.

Currently a new research institution for oil and natural gas is under construction. This new facility will be in addition to the already existing research facilities available in oil companies.

1.2 Tin

With the exception of 1964, tin production has decreased in the last few years. After 1966, however, the annual production again increased almost 10% annually. The decrease in tin production was caused by institutional problems and by a decline in tin wealth as shown in the reserves data on Bangka, Belitung and Singkep.

It was impossible to carry out proper maintenance and rehabilitation in the past because the regulations on the exportation of tin stipulated that only a small portion of foreign exchange would be given to tin companies. For example : in 1961, only 15% of the foreign exchange obtained from tin exports was allocated to the tin companies. In 1963, this amount increased by 25% and in 1966, 1967 and 1968 it was 50%, 75% and 85%.

60% of tin production is obtained by dredges, both offshore and on land, and the rest is produced in open-cut mines.

1.3 Bauxite

The bauxite mine on the island of Bintan is more encouraging, both in relation to its equipment and to export regulations. Until 1964, Bintan was a "dollar area". Different export regulations were applicable to this island. But today it has been stipulated that 90% of the foreign exchange obtained from bauxite exports will be allocated to the bauxite mining enterprises. With the Japanese marketing agreement, bauxite production is adjusted to accord with the stipulations described in the agreement.

1.4 Nickel

Nickel ore is exported to Japan on a production-sharing basis. The rejection point of nickel content, which was 2.9%, has now been lowered to 2.6%.

1.5 Gold and Silver

Throughout the world gold mines are generally subsidised by governments because, in reality, gold prices do not undergo drastic changes, but the production costs of gold mines tend to increase. In Indonesia, the situation is different : the production cost is relatively low and gold prices are relatively higher than in any other country. Indonesia's gold mines can produce gold economically if they have good infrastructure.

The Government-owned gold mine is located in Tjikotok, West Java. In Djakarta, there are industries processing precious metals, such as gold, silver, platinum, etc. These industries operate below capacity, because the quantity of raw materials to be processed is well below what they can handle.

1.6 Manganese

Manganese mines are operated by the First Level Administration of West Java in the Karangnunggal area (Tasikmalaja) and by the Special Administration of Jogjakarta in the Kauripan area (Kulon Progo). The production of manganese has sharply decreased since 1961, and it cannot be exported on the basis of a long-term sales contract.

1.7 Sulphur

The sulphur mine is run by the First Level Administration of West Java in the area of Wanaradja. Its production is relatively low.

1.8 Diamonds

Diamond mines are owned by smallholders in the Martapura and Sungai Gula areas (Central Kalimantan). Their estimated monthly production is from 3,000 to 5,000 carats. Part of the Martapura diamond yield is exported. A survey has been conducted since 1967 to study the possibility of establishing a mine using mechanical equipment, but this program is faced by financial difficulties and other obstructing factors.

1.9 Coal

Coal production has decreased sharply since World War II. Originally, this was caused by lack of funds, so that there was only a limited production of coal. Consequently, production cost per unit increased, thus affecting the prices. Then, old furnaces could not be reconditioned. The furnaces used coal as their fuel, but now diesel units are being used. The consumption pattern has changed from coal to oil. Hence the income earning of coal mines is decreasing in such a way that it is impossible to maintain them properly.

2. Policies and Measures

2.1 Expansion and Development

A mining enterprise has certain typical characteristics, i.e.:

(a) it requires a large amount of capital and specialized knowledge,

(b) it is experimental and involves a big risk factor,

(c) profit cannot be obtained in a short period of time, and

(d) it is a "depleting asset", i.e. the wealth is constantly decreasing and cannot be replaced. New mines can be established only after the discovery of new deposits requiring intensive survey and exploration.

Therefore the Government has decided to invite foreign investors to study, exploit, process and expand the mineral deposits within the limitations of Act No.1/1967. Joint enterprises with foreign countries must be integrated with the processing of domestic minerals into half-finished or finished goods, for increasing the export value as well as for transforming them into raw materials for the export industry.

The Government has promulgated regulations for mining activities exclusive of oil and natural gas. These regulations cover matters relating to the implementation of acts or laws on mining, state revenue, exemptions from various mining taxes, classification of minerals, and other legislative acts.

The limited knowledge and the minimum provision and presentation of data on minerals available in Indonesia have obstructed further exploitation conducted both by state and private enterprise. Geological surveys and mapping are important pre-investment steps. Therefore separate funds will be provided to supplement assistance obtained from other countries. Information, regulations, controls, supervision and the drafting of regulations will be intensified to create a climate conducive to mining activities.

2.2. Exploration and Research

Mining activities carried out by state-owned companies or foreign or national private enterprises, as well as by smallholders, must be based on data, laws, directives, etc. pertaining to geology and mining.

Geological surveying is not restricted to the studying and mapping of potentials in the regions, but also includes activities which are directly beneficial to other sectors, such as :

(a) agriculture, irrigation, industry, infrastructure, technical geology, water conservation, and urban geology which serves as the basis for planning the construction of buildings, roads, bridges, industrial areas, cities, etc.

(b) natural disasters and flood prevention, and

(c) scientific fields, e.g. laboratory research, documentation, publication, etc.

The provision of complete data is very important because it makes possible the establishment of new mines operated either by domestic or foreign enterprises.

The mining sector covers duties of management, supervision and guidance of mining activities. It also prepares for regulations on mining activities conducted by either national or foreign private enterprises or smallholders:

(a) in mineral reserves and conservation: determining mineral deposits that may be exploited by smallholders;

(b) in guidance: directing production activities toward the most effective employment of available equipment;

(c) in mining research and the processing of minerals: to conduct production research on a small scale (pilot plant) and

(d) in drafting regulations: to carry out a mining census to facilitate a future policy of mining development.

2.3 Training

Considering the shortage of apprentices and experts who have had intermediate, college, or university training or education in the fields of geology and mining, particularly concerning the techniques of mineral processing (mining, drilling, etc.) and management, it is necessary to upgrade the skilled workers. Efforts will be resumed to conduct vocational training and the training of apprentices in geology, exploration, exploitation and processing the excavated minerals such as coal, oil and natural gas. The fields of metallurgy, petrochemicals, the economics and administration of mining are also important targets. Geology and mining training are beneficial to other sectors such as agriculture, industry and facilities.

2.4 Joint Enterprises and Foreign Capital Investment

Joint enterprises have been undertaken by :

(a) Free Port Sulphur for copper mining in West Irian investing $ 1.7 million for exploration;

(b) N.V. Biliton My for tin mining between Singkep and Bangka, Pulau Karimata and its surroundings with a total investment of $ 1 million for exploration; and

(c) Inco for nickel mining in Central Sulawesi, South-east and South Sulawesi with an investment of $ 1.5 million for exploration. New exploration will be initiated if present exploration shows that adequate mineral reserves for economic production are available.

In the meantime, international tenders have been offered to conduct surveys for development of new mining in :

(a) Tin

1. North and South Riau archipelago and territorial waters.
2. Primary sediment areas and off-shore sediment in Bangka and Belitung.
3. Bangkinang.
4. Anambas and Natuna.

(b) Nickel

1. Maluku (Halmahera and its surroundings).
2. South-east Kalimantan.
3. Waigeo island and West Irian.

(c) Bauxite

Possible survey for bauxite mining project and aluminum projects.

(d) Possible survey and mining in various off-shore areas in Indonesia.

2.5 Oil and Natural Gas

The principal problem in the production of oil and natural gas is to discover new reserves and fields or areas to replace the present resources. The Government has offered foreign enterprises an opportunity to establish joint ventures for exploration and exploitation. In general, the operational areas granted to foreign enterprises are off-shore areas. Areas of land are reserved for the expansion of state oil enterprises, except in certain difficult areas.

The important problem for the future will be the marketing of oil abroad. In East Asia, where the demand for oil has significantly increased, Indonesia's oil has advantages because of the country's geographical location, as transportation costs can be minimized. Although the operation of gigantic tankers will affect these advantages, the negative consequences may be eliminated by expanding supply sources of the consumer countries. Another advantage of Indonesia's oil has been discovered recently, its low sulphur content. Because of certain measures taken by the oil processing countries to prevent "sulphur air-pollution", demands for Indonesia's oil will increase. Efforts in marketing Indonesia's oil abroad have been initiated and will be promoted continuously.

Another question is the proper development of refineries. At present, refining is oriented to domestic requirements; the remainder is exported. Although there is sufficient opportunity to expand the market for refinery products, the Government in the next five years will maintain its present policy.

New refineries will be constructed at Dumai, because the South Sumatran refineries (along the Musi river) are old and no longer operate at full capacity, and the quantity of crude oil and refinery products to be transported to and from the refinery is large. Most crude oil needed domestically can be distributed through medium-sized pipes, and the refinery products can be shipped by large tankers whose frequency can be increased.

In order to meet domestic demand, storage facilities in the terminals and land transport facilities will be expanded.

With the efforts to boost foodstuff production, the demand for fertilizer will obviously increase. The use of natural gas for nitrogen fertilizer will be given top priority. Possibilities of utilizing gas for the petrochemical industry, for generating electric power, fuel, etc. will be studied thoroughly. Because this program requires heavy capitalization, any proposals related to the use of gas can be justified only after the existence of sufficient gas reserves has been substantiated.

In addition to oil mining operated directly by P.N. Pertamina with its own investment of $ 60 million for the oil mining areas in Atjeh, North Sumatra, Djambi, South Sumatra, Kalimantan, East Java and West Irian, there are also three joint venture contracts and 24 production sharing enterprises.

It is expected that until 1970/71 oil production conducted by P.N. Pertamina, Caltex, and Stanvac will increase and that thereafter the output will decrease, as the known oil reserves will diminish. If exploration is successful, it is hoped that at the end of the Five-Year Development Plan oil production will increase again. The financing of exploration undertaken by 22 foreign enterprises through joint ventures as well as production sharing is $ 184 million : $ 23 million in 1969; $ 35 million in 1970; $ 44 million in 1971; $ 45 million in 1972 and $ 37 million in 1973.

Foreign companies which have signed joint ventures are: 1. P.T. Caltex Pacific Indonesia (Central Sumatra); 2. P.T.

Stanvac Indonesia (Central and South Sumatra); 3. P.T. Calasiated and Topco (Central Sumatra).

- Production sharing :

1. Asamera (North Sumatra); 2. Refican (North Sumatra); 3. Iapco (West Java); 4. Refican (South-east Kalimantan); 5. Kyushu (South Kalimantan); 6. Japex (Bunju and Mahakam); 7. Continental (South Kalimantan); 8. Cities Service Co. USA (East Java); 9. Union Oil Co Exploration (West Atjeh); 10. International Oil Timor Exploration (Timor); 11. Phillips & Superior (South of West Irian); 12. C.F.P. (Djambi); 13. Indotex (Halmahera); 14. Vico & Huffington (South Sumatra and East Kalimantan); 15. Iapco (South-east Sumatra); 16. Agip S.A. (West Irian); 17. Redco (Sumatra, Java, Kalimantan); 18. Mobil (North-east Sumatra); 19. Continental (South China Sea); 20. Union Oil Co of Indonesia (East Kalimantan); 21. Frontier (South China Sea); 22. Gulf (South China Sea); 23. Agip S.A. (South China Sea); 24. South East Asia (South Sulawesi and South-east Sulawesi).

Based on an expectation that exploration will yield results by 1972, the production of crude oil is estimated (in 10^6 BBL) as follows:

Table VII-B-1

PRODUCTION OF CRUDE OIL, 1969/70 - 1973/74

(in 10^6 BBL)

1969/70	293
1970/71	358
1971/72	364
1972/73	401
1973/74	440

The domestic demand for fuel for the next five years has not yet been accurately determined. However, the demand is expected to increase from 40 million barrels in 1969 to 52 million barrels in 1973, or 1.3 times the 1969 consumption. Therefore by 1971 the existing refineries will no longer be able to meet domestic requirements. In this connection, an additional refinery will be set up in Dumai with a daily capacity of 100,000 barrels and this can be expanded to 150,000 barrels a day. This requires an investment of approximately $ 40 million. The construction of refineries at Dumai will reduce costs, such as those for transport. To meet the needs after 1973, construction of new refineries in Java, with a capacity of 100,000 - 120,000 barrels a day, are being considered because of newly-discovered oil reserves there. If the entire operation is to be carried out by the state enterprises, the transport capacity must be expanded to 130,000 DWT or approximately 15-20 tankers of diverse sizes. This investment will amount to $ 60 million. In addition the tanker fleet, for export purposes, needs to be increased by 5 vessels.

Overall development and expansion of land transportation and storage facilities are needed to handle domestic oil supplies by 1973. At present, the storage facilities are for 500,000 barrels while an expansion of at least 1,200,000 barrels is required. This expansion and development will include 12 seafed terminals and 4 up-country depots which will require an investment of $ 5 million and Rp.3 billion. Finally, it is also considered necessary to dredge certain important harbors, such as Belawan, Palembang (Musi River), Pontianak, Bandjarmasin, Surabaja, Djambi, etc.

The annual asphalt production at Pangkalan Susu and Wonokromo will be increased to 60,000 tons and 30,000 tons respectively. In the meantime, the construction of a new unit at Pladju is being planned. This construction will utilize facilities already available. The projected capacity will be 50,000 tons a year with an investment of $ 0.5 million.

The natural gas produced, at whatever location, will be used in accord with development priorities and the special character of the local natural gas. In North Sumatra, LPG and Carbon Black units have been constructed with an investment of $ 5 million. An additional investment of $ 3 million is needed to attain the full capacity of 2,500 BBL LPG a day and 20 tons of Carbon Black daily.

In South Sumatra, associated and non-associated gas is found. In addition to its use for expanding urea production by 300%, this gas will also be used for the manufacture of plastics such as polyethylene.

In the Tjirebon area, West Java, natural gas has been discovered which is thought to be a reserve of non-associated gas in large amounts. This gas will be used in a fertilizer factory with a minimum annual capacity of 500,000 tons.

2.6 Tin

The principal problem confronted by tin production is its reserve, particularly the decreasing tin content. Offshore activities will be increased to discover new and richer reserves. In addition, a foreign investment agreement has been reached to carry out exploration and exploitation in the territorial waters between Singkep and Bangka, and on the island of Karimata and its surroundings.

The equipment is old and not well maintained. It will soon be replaced to prevent a further production decrease, and possibly to increase output in the future. The production increase of tin is extremely significant in maintaining and securing Indonesia's position on the international market. The Government has been encouraging foreign countries to issue credits with reasonable terms and conditions, but the production increase of the known tin reserves will be realized only by 1972.

In the meantime, research will be carried out on the possibility of marketing minerals which are found together with tin such as monasit. It is hoped that this program will increase exports of mining products.

The prognosis of production in the next five years is presented in the table below :

Table VII-B-2

TIN PRODUCTION (CONCENTRATED), 1969/70 - 1973/74
(in metric tons)

1969/70	16,160
1970/71	16,790
1971/72	17,575
1972/73	18,695
1973/74	19,375

2.7 Bauxite

The problem faced by bauxite production is its marketing. With limited reserves -- compared to other bauxite producing countries, such as Australia -- the primary step to be taken is to establish a regular market. Long-term contracts have been signed with buyers.

Another problem is the ever-growing distance between the exploitation areas and the harbors, and improvement in transportation is necessary. Investments, in this case, are financed from the earnings of the enterprises themselves.

To increase the quantity of reserves, it is hoped that buyers will be willing to purchase bauxite with a lower rejection point. To discover new mineral deposits, cooperation with international companies will be promoted to increase export volume and establish aluminum factories.

The bauxite production program on the island of Bintan will be adjusted to the agreed long-term contract with a small quantity of over-production for incidental sale. For this increase of production, investment will be made to repair equipment ($ 380,000) and to dredge the harbor area ($ 500,000). These investments will come from internal financing.

Bauxite production in the next five years will be as follows :

Table VII-B-3

BAUXITE PRODUCTION, 1969/70 - 1973/74

(in metric tons)

1969/70	1,000,000
1970/71	1,050,000
1971/72	1,200,000
1972/73	1,200,000
1973/74	1,200,000

2.8 Nickel

The problem confronted by nickel mining at Pomala (South-east Sulawesi) concerns its reserves. With the acceptance of the lowering of the nickel rejection point to 2.6%, nickel reserves are increasing. Yet the reduction of this rejection point still does not guarantee the future of nickel mining.

By reaching agreement on the lowering of the nickel rejection point and increasing sales to 230,000 tons annually, the production at Pomala will be stepped up to meet the commitment. To increase this production, $ 350,000 is required and will be self-financed.

Further exploration is necessary to decide whether the development of the Indonesian nickel processing industry can really be justified in the future.

2.9 Gold and Silver

The policy to be followed is to continue increasing production according to the equipment's capacity. Similarly, the policy will also be directed towards ensuring supplementary materials and imported spare parts. The precious metal processing industry will follow a similar policy.

By rehabilitating equipment, increasing working efficiency and intensifying recovery, it is expected that production will increase slightly (without significant new investment) in the coming years. It is expected that the production of ore will increase, but as the content of gold and silver ores is decreasing, the production of these precious metals will no longer increase by the end of the Five-Year Development Plan. A detailed description of the production of gold and silver is presented in Table VII-B-4 :

Table VII-B-4

PRODUCTION OF GOLD AND SILVER, 1969/70 - 1973/74
(in Kilograms)

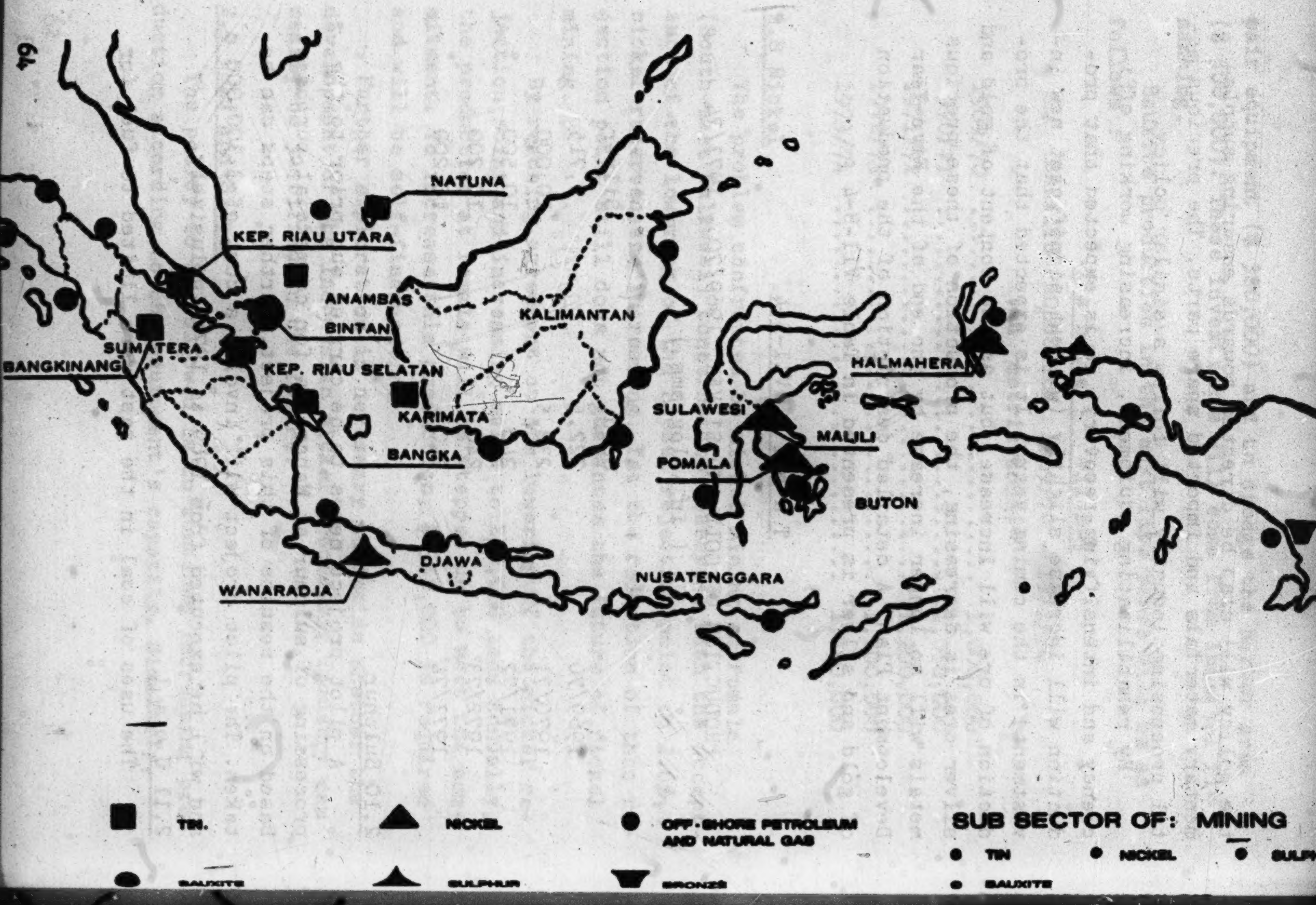
	Gold	Silver
1969/70	222.5	9,715
1970/71	232.5	10,000
1971/72	240	10,500
1972/73	240	10,200
1973/74	240	10,200

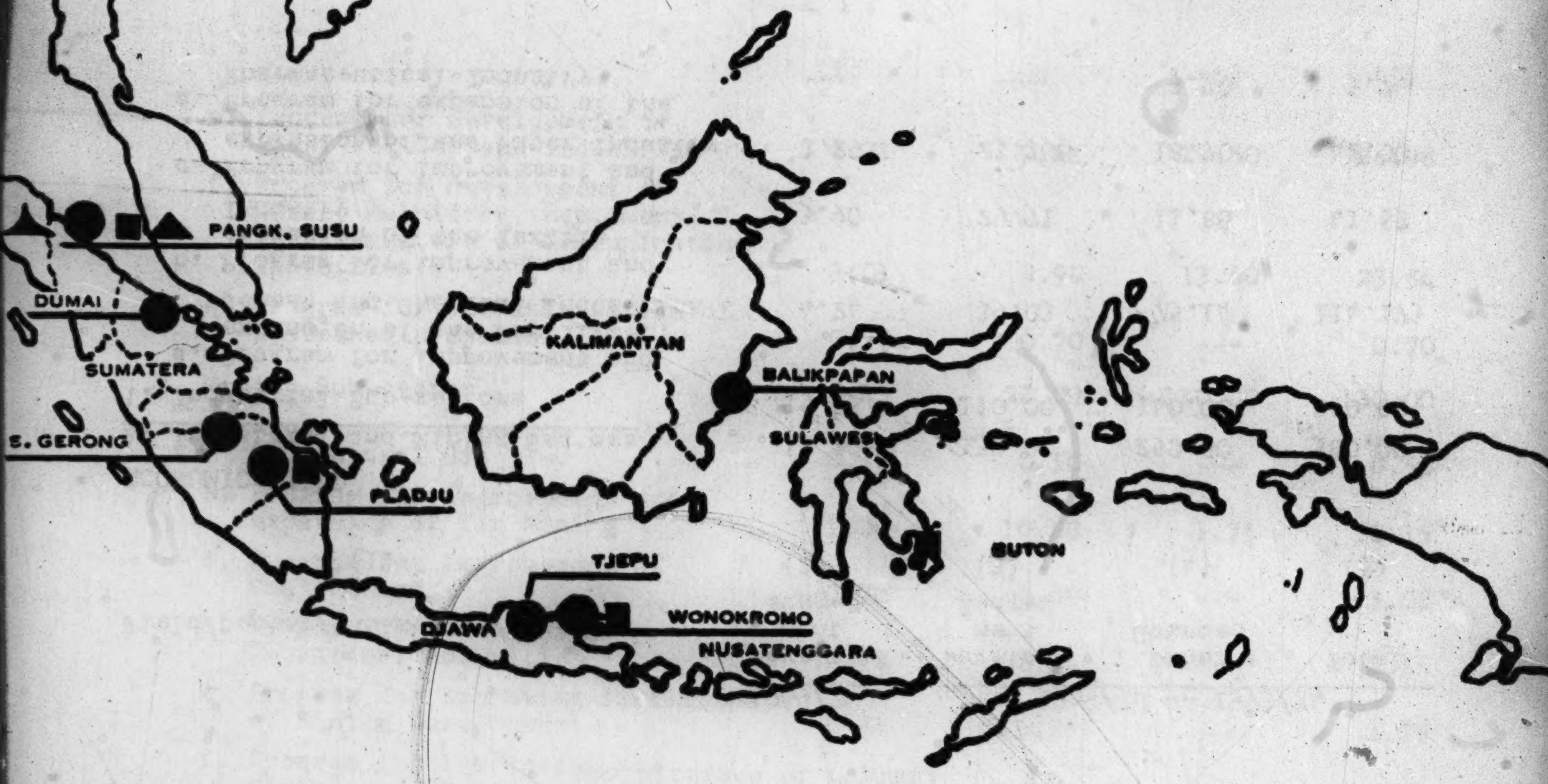
2.10 Sulphur

A pilot project needs to be carried out prior to the processing of sulphur at Wanaradja for commercial purposes. Based on the results of this project, further steps can be taken. The pilot project will involve a cost of $ 300,000 and will be executed from 1969 to 1971 inclusively.

2.11 Coal

The uses of coal in the past were limited to fuel for


SUB SECTOR OF: MINING
NATUNA
KEP. RIAU UTARA
ANAMBAS
BINTAN
KEP. RIAU SELATAN
KARIMATA
BANGKA
SUMATERA
BANGKINANG
KALIMANTAN
SULAWESI
MALILI
POMALA
BUTON
HALMAHERA
DJAWA
WANARADJA
NUSATENGGARA
TIN.
NICKEL
OFF-SHORE PETROLEUM AND NATURAL GAS
BAUXITE
SULPHUR
BRONZE
TIN
NICKEL
SULP
BAUXITE


PANGK. SUSU
DUMAI
SUMATERA
S. GERONG
PLADJU
KALIMANTAN
BALIKPAPAN
SULAWESI
BUTON
TJEPU
DJAWA
WONOKROMO
NUSATENGGARA

● REFINERY
■ ASPHALT

▲ L.P.G
▲ CARBON BLACK

I SUB SECTOR OF : MININ
PETROLEUM AND NATURAL GA

T a b l e VII

FINANCING THE FIVE-YEAR DEVELOPMENT PLAN
INDUSTRY AND MINING
1969/70 - 1973/74
(in billions of rupiah)

Field/Sector/Sub-sector/Program	1969/70	1969/70 -- 1973/74		
	Develop-ment Budget	Develop-ment Budget	Other Sources	Total
(1)	(2)	(3)	(4)	(5)
ECONOMIC FIELD				
A. Industrial and Mining Sectors	18.29	130.00	250.00	380.00
1. Industrial Sub-sectors	15.85	110.00	140.00	250.00
a. Program for improvement and expansion of the Fertilizer, Cement and Chemical Industries	4.24	39.03	75.14	114.173
b. Program for improvement and expansion of the Textile Industry	3.90	29.71	11.86	41.57
c. Program for improvement and expansion of the Paper Industry	1.29	23.306	18.70	42.00
d. Program for expansion of the Pharmaceutical Industry	---	---	3.70	3.7

(1)	(2)	(3)	(4)	(5)
e. Program for development of Light and Cottage Industries	2.71	7.48	17.50	24.98
f. Program for development of Metal, Machinery, Equipment/ Infrastructure of Communication Industries	3.01	9.94	13.60	23.54
g. Program for the utilization of postponed projects	0.70	0.70	---	0.70
2. Mining Sub-sector	2.45	20.00	110.00	130.00
a. Program for research on Oil and Natural Gas	0.10	0.50	---	0.50
b. Program for improvement and expansion of Tin Mining	1.00	10.40	1.75	12.15
c. Program for improvement of Coal Mining	0.70	3.00	---	3.00
d. Program for increasing Geological Activities	0.38	2.35	---	2.35
e. Program for improving facilities of Mining Development	0.26	1.75	---	1.75
f. Program for increasing the Mining and Processing of Gas and Crude Oil	---	1.20	105.5	106.70
g. Program for increasing Mining and the Processing of Various Mining Products	---	0.80	2.75	3.55

(1)	(2)	(3)	(4)	(5)
B. Industrial and Mining Activities the financing of which is included in other Sectors				
SOCIAL FIELD				
Training and Cultural Sector				
Training and Institutional Training Sub-sectors	0.329	2.762	---	2.762
a. Program for Training/Institutional Practice, Industrial Sub-sectors	0.10	0.815	---	0.815
b. Program for Training/Institutional Practice, Mining Sub-sector	0.004	0.032	---	0.032
c. Program for increasing Research/Surveys, Industrial Sub-sector	0.225	1.915	---	1.915
GENERAL FIELD				
General Governmental Sector				
General Governmental Sub-sector				
a. Program for improving Governmental Physical Infrastructure, Industrial Sub-sub-sector	0.300	P.M.	---	P.M.
b. Program for improving Governmental Physical Infrastructure, Mining Sub-sector	0.150	P.M.	---	P.M.

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vessels and for old-style furnaces for electric generating.

Generally, other coal producing countries have been able to adjust this resource over the years by utilizing coal in modern ways. Today coal is used for electric power plants of large generating units, chemical projects, etc. Research on this is needed. Several sectors and ministries are to participate in this research so that an integrated solution can be worked out at the national level.

In addition to research for determining further measures, activities in coal mining will also emphasize preventing further production decreases, maintaining the market, seeking new uses for coal, and maintaining equipment as well as possible. Rehabilitation will be conducted in the Ombilin and Bukit Asam coal mines so that the proper level of production and prices can be attained. If domestic demand does not equal production, coal will be sold to other countries. A thorough study of this matter will be carried out.

C. ELECTRIC POWER

Electricity serves as one of the vital power resources in promoting economic activities and social welfare. Conversely, economic growth and the increase of prosperity require more power resources, particularly electricity. There is a mutually dependent relationship between the electric power supply and economic growth, so that it is important to plan thoughtfully for the improvement of the electric supply and to consider the effect of the general economic development upon it.

1. Situation and Problems

Before 1954 electricity was provided commercially by private companies. The Government only provided electricity and its transmission in West Java, some areas in East Java, North Sulawesi, South Sumatra and a few other towns. In 1954 the private companies were nationalized and merged (in 1958) into the State Electric Company (PLN). Since then, PLN has been responsible for generating and distributing electricity throughout the country under the supervision of the Directorate General of Power and Electricity, Department of Public Works and Electric Power.

In 1958, the capacity of electricity installed was 262,500 KVA and by the middle of 1968 it had more than doubled (633,326 KVA). Of this capacity, 47 per cent is generated by 64 hydro-power units, 19 per cent by 18 steam-power units, 28 per cent by 531 diesel-power units, and 6 per cent by 3 gas-turbine units.

There are also electric power sources operated by private companies for their own requirements, such as for factory purposes or home lighting. No accurate figure is available, but it is estimated to be around 200,000 KVA.

By the end of 1966, the total installed capacity was 585,811 KVA with an effective capacity of only 51 per cent of that. This was because some generators were inoperable because of major damage, obsolescence, or the lack of spare parts. At the end of 1968 it was hoped that the effective capacity will be 80 per cent.

Not all the power generated can be sold as in the transmission and distribution networks there is always a so-called transmission loss of 10-15 per cent. For instance, in 1967, of 1,607 million KWH generated, only 1,194 KWH was sold. Approximately 25.7 per cent constituted a loss for the PLN. This percentage figure represents the average loss throughout the country; the lowest percentage (10 per cent) was noted in the exploitation area of West Sumatra, and the highest (35 per cent) in the western part of West Java.

In 1966 the average loss was 23 per cent. This high loss was mainly caused by exceeding the distribution capacity, electric thefts, and the unsatisfactory operation of electric meters.

In Indonesia, the electrical system has not yet been connected up throughout the country. Outside Java, the electrical network is locally operated with power generating units, so that it is supplied over only a limited distance.

In Java there are five separate electrical transmission networks, i.e. in West Java, Ketenger (western part of Central Java), Tuntang (eastern part of Central Java), Kalikonto (eastern part) and Madiun (western part of East Java).

Administratively, West Java is divided into the western exploitation area (Djakarta) and the eastern exploitation area (Bandung). The highest transmission voltage, i.e. 150 KV, connects the Djatiluhur Hydro-Power Station with Djakarta and Bandung. There are also transmission networks of 70 KV and 30 KV. In West Java the sources of electricity are water, steam, and diesel power interconnected through substations by transmission and distribution networks.

In Central Java there are two separate systems: in the western part of the Katenger system and in the eastern part the Tuntang system. Each system uses water, diesel oil, and gas to generate electricity and is connected through substations by 30 KV and 15 KV transmissions.

The volume of water in the Rawapening reservoir is decreasing because the lake is drying out. Consequently in the dry season the electric capacity at Tuntang is only 18,000 KVA compared with the installed capacity of 45,000 KVA. In Katenger the capacity during the dry season is 6,000 KVA compared with the installed capacity of 13,000 KVA, because the Katenger Hydro-power Station is of the "run-of-the-river" type (without an annual dam or a daily pond). For this reason, consumption of electricity must be restricted during the dry season.

In East Java the Kalikonto system is found, consisting of a steam-power station in Surabaja (50,000 KVA), hydro-power stations in Mendalan (23,000 KVA), and in Siman (11,000 KVA), and diesel generators in Ngagel and Malang. In the eastern part, there are two separate systems (Djember and Banjuwangi). The Kalikonto system is connected through sub-stations with the transmission networks of 70 KV, 30 KV, and 15 KV. Although electricity generating capacity is adequate for the present, its distribution is still far behind because of the short supply of equipment.

Sumatra is divided into four PLN exploitation areas with Palembang, Medan, Banda Atjeh and Padang as the centers.

79 per cent of the country's installed electricity capacity is in Java, 16 per cent in Sumatra, and 5 per cent in other regions.

In Sumatra electricity is obtained from diesel generators. In 1968, two gas-turbine plants, each with a capacity of 14,000 KVA, were installed in Palembang and Medan. The distribution network is limited to short distances from the power stations. The same situation can be found in other areas outside Java.

In the last five years, 20 per cent of electric power was used in industry. This percentage is not the same in each exploitation area. The highest percentage is in West Sumatra (41 per cent in 1966) and the lowest (2 per cent) in Atjeh. Because electric power consumption in these two areas is low, the absolute use is also low. Java has a relatively high volume of electricity consumption. In 1966, 20 per cent of the electricity sold was for industrial purposes in the eastern part of West Java, 24 per cent in the western part, 13 per cent in Central Java, and 24 per cent in East Java. In reality, the total utilization of electricity is much higher in industry than these figures indicate because many industries and enterprises have their own electricity sources.

The use of electricity during 1962-1966 in West Java increased by 40 per cent, i.e. from 405.90 million KWH in 1962 to 567.94 million KWH in 1966. In Central Java, it increased by 8 per cent (from 151.03 million KWH in 1962 to 164.32 million KWH in 1966), and in East Java 14 per cent (from 216.87 million KWH to 247.02 million KWH in 1966). In Sumatra the sale increase was approximately 12 per cent (from 129.8 million KWH to 145.1 million KWH). It is evident that in Java the percentage increase in Central Java is the lowest and that in West Java is the highest.

These percentage differences occurred because the capacity of the network is not congruent with the generating capacity or both the network and power stations heve been over-loaded. The existing power stations must be rehabilitated, so that their capacity can be more fully utilized. To increase and improve the distribution of electricity, distribution and transmission network must be extended and repaired in many places. The institutional efficiency within the organization managing the use and distribution of electricity must also be improved.

2. Development Policy and Measures

Qualitatively, the targets for the development of electric power are (a) increasing efficiency in the utilization of power stations through rehabilitation and the improvement of the distribution and transmission network capacity and (b) increasing the electric power supply, both through additional investment in new generating capacity and new distribution and transmission networks. Having achieved these targets, it is expected that the supply of electricity per capita can be increased. Such an increase would not only be consistent with the growth of the economy, but would also help to stimulate such growth.

According to statistics in 1961 -- the only time a complete population census was carried out -- the total number of households in Java was 14,517,000, i.e. 1,963,000 in the urban areas and 12,554,000 in the rural areas. These can be classified into four catagories: permanent, semi-permanent I, semi-permanent II, and temporary. For the time being, only the permanent and semi-permanent I are prospective customers for electricity. On the basis of this estimate, the ratio of prospective subscribers will be 1 out of 10 urban inhabitants and 1 out of 35 rural inhabitants, or, throughout Java, 1 out of 28 inhabitants.

In accordance with research which was conducted in West Java in 1963, the average demand for electricity was 300 W per subscriber in rural areas and 510 W per subscriber in urban areas. These figures do not reflect the actual demand for electricity per subscriber, but is the assumed contribution to the peak load per consumen covering all purposes including industrial and commercial uses. The probable load in 1961 would have been 742 MW with a peak load of 894 MW, but since the actual load was 154 MW, the saturation factor was then 0.184.

Between 1938 and 1940, the load increased by an average of 10 per cent, and the maximum production in 1940 was 120 MW with a maximum load of 98 MW. If this figure is compared with the probable load in 1961, the annual increase of load between 1940 and 1961 is approximately 10 per cent. We may conclude that the annual increase of probable load during that period was 10 per cent annually. On the basis of the data, the probable load in 1967 was 1,580 MW, whereas the actual load was 226 MW. Therefore, the saturation factor was 0.140, or 31 per cent lower than 1961.

In order to reach effective capacity, the increase of electrical supply must exceed 10 per cent annually. If the increase is approximately 15 per cent a year, the necessary supply will be achieved in the year 2015. The higher the increase in the supply of electricity, the quicker the situation can be brought about in which the minimum need for electrical power can be satisfied.

Electricity supply can be increased by stepping up the capacity of the power plants and the existing distribution and transmission networks, and by increasing capacity by new investment in the generation and distribution of electric power.

For generating electricity, water is the most economical system, but it takes the longest time to build; diesel oil is the most expensive, but it can be constructed quickly. Large units using steam as their source of power have been able to compete, in cost of operation, with the ones using water, and their construction period is shorter. During the 1969-1973 period, special attention will be given to supplying electricity which is economical on the basis of cost-accounting principles.

Highest priority in the development program for electricity, will be given to rehabilitation, increasing capacity, and widening of the distribution and transmission network. To avoid past mistakes, the size of the distribution and transmission networks must be much greater than the additional capacity of new installations. In other words, the construction of networks must keep ahead of increasing capacity.

In expanding the transmission network, new areas must also be included, so that in the long run, there will be inter-connecting of constellations into a single system. Thus the conditions will be created for achieving optimum technical operation. The second priority will be the construction of new power plants.

The need, and the opportunity for the growth of installed electric capacity is great. The problem is that the total amount of financing needed is extremely large and, generally it is entirely dependent on the Government's financial resources. In facing the financing question for the development of electricity, "opportunity cost" should also be considered, i.e. the opportunity for rehabilitating other economic infrastructure that is sacrificed.

In the next five years, the funds provided are Rp. 100 billion, or approximately 9.4 per cent of the total development budget. The problem is how to make use of these limited funds to achieve the maximum results.

Because of limiteo financing resources, it is impossible to meet all demands throughout the country. Priority must be given to activities which generate economic development. Therefore an electricity rate must be calculated for industrial subscribers that is more favorable to the growth of production. This means that gradually and relatively the burden will be shifted to consumer subscribers, particularly to those who use electricity beyond their minimal needs. The proceeds from the sale of electricity must gradually take over a significant part of the investment in electricity.

As one of the basic needs of the Indonesian people, electricity will still be an expensive item for a relatively long time to come.

In addition to rehabilitation, the development of electric generators and increasing electric power, the main tasks at present are increasing working efficiency and reducing to the minimum the electricity exploitation cost. In this connection, organizational and institutional improvements are to be implemented after thorough investigation.

A study of the present condition of electric power will show that investment is needed to reach a more balanced relationship between the capacity of electric generating units and the capacity of the distribution system.

The Five-Year Development Plan for electricity between 1969/70 and 1973/74 includes :

(a) rehabilitation and expansion of the transmission and distribution networks;
(b) rehabilitation and construction of power plants, taking into account, a favorable cost-benefit ratio;
(c) preparation and development of small, isolated electric power plants, using both "micro-hydro" and diesel power;
(d) institutional improvements and improvements in efficiency;
(e) research, surveys, and feasibility studies in relation to the planning of the power supply and its tariff structure.

If the plan is carried out according to this scale of priorities it may be predicted that the installed capacity of electricity will increase in the next five years to 425,000 KVA, an increase of almost 65 per cent.

The following pages present a detailed description of the Electric Power Development Plan. Construction of new power plants will be undertaken only after intensive studies of possible alternatives have been made. If such studies indicate that the development of a certain power plant cannot be economically and technically justified (e.g. because there are better alternatives) the project will automatically be cancelled. This is crucial, as the cost of developing power plants is extremely high. Furthermore, the construction of power plants must be carried out in a way that creates as many job opportunities as possible.

2.1 Rehabilitation and Expansion of Electricity Transmission and Distribution Networks

The rehabilitation and expansion of transmission networks will be concentrated primarily in West Java, Central Java, East Java, East Sumatra and West Sumatra. Each effort must always be preceded by a survey or a feasibility study to ensure optimal benefits from investment.

Rehabilitation and expansion of electricity distribution networks will be carried out in West Java, Central Java, East Java, and East Sumatra with a scattering in various other places. The rehabilitation and expansion of distribution networks should also be preceded by surveys and feasibility studies.

In West Java, it is necessary to rehabilitate and expand electricity transmission and distribution networks to better take advantage of the generation facitlities at Djatiluhur and Tandjung Priok. Therefore, it is expected that a more favorable balance can gradually be attained between the electric generating units and the transmission and distribution networks.

In Central Java, the Tuntang and Katenger systems will be connected, so that the Garung and Semarang power plants can be used more beneficially. Similar efforts will also be made in East Java, i.e. to gradually link the local distribution networks at Djember and Banjuwangi, thus acquiring greater benefit from those two centers.

In East Sumatra, a distribution and transmission network will be established around Medan while a new power plant is being constructed. This will be part of a long-term program for the use of electric power generated from Asahan, if a survey and feasibility study verify its economic benefit.

In West Sumatra, the transmission and distribution planning are closely related to the utilization of the Sawahlunto Power Plant. The mining sector will be asked to carry out a survey and feasibility study of the rehablitation of the coal mine at Umbilin. If this survey justifies the rehabilitation of the Umbilin coal mine, then the power plant that is already under preparation should be completed. It has been estimated that the plant will also supply power in the Umbilin mining area. Electricity transmission and distribution networks are also being planned for this purpose.

The distribution network should be rehabilitated and expanded evenly in all regions surrounding existing electric generating centers . In this connection, the rehabilitation and expansion program will be preceded by a survey and feasibility study to ensure the optimal use of investment.

The main investment objective in the distribution and transmission networks is to maintain a balance between the capacity of electric generating units and the capacity of distribution, so that full use can be made of the generated power. If such planning can be carried out, there will be a greater likelihood of establishing a more efficient cost per KVA, after which more realistic tarrifs can be determined.

2.2 Rehabilitation and Construction of Power Plants

Power plants can employ water, steam, gas or diesel oil as their source of energy.

The use of water power as a source of energy does not only generate electricity; it also benefits irrigation, flood control and recreation sites. The construction of a multipurpose generator using water power will stimulate great interest in this method of generating electricity. However, usually the high investment cost limits the possibility of establishing such projects extensively. Hydro-electric power plants which are in the process of construction will be completed. Any new ones must be preceded by a survey and feasibility study of their probable economic benefits.

a. The Asahan Hydro-electric Power Plant (East Sumatra)

There are two survey reports available compiled by a Soviet Union survey team and a Japanese survey team. The former recommends a power generating unit with an installed capacity of 160 MW, the latter suggests 460 MW. Both surveys insist on the necessity of establishing an aluminium plant which can utilize the electricity generated. Without this plant, the electricity generated will exceed the regional demand.

At present, the development of such a factory is being studied. This factory is to be financed by a private company and preceded by a survey on bauxite raw materials, so that the exploitation can be justified commercially.

Meanwhile the possibility of, and methods for, constructing the Asahan dam and electric generators are being studied. Further steps depend on the results of the survey. If the results of the survey are satisfactory, the construction of the Asahan dam will be completed within the second Five-Year Development Plan.

b. The Batang Agam Hydro-electric Power Plant (West Sumatra)

The construction of a hydro-power plant in Batang-Agam, West Sumatra, will be reviewed within the context of the overall power development plan for this area. A study will also be conducted into the possibility of power generation at Umbilin, Sawahlunto, using coal as fuel.

A survey and feasibility study will be carried out to determine possible benefits and to find a solution to the present decline of the Umbilin coal mine. The program for rehabilitation of this mine will also include a marketing study for the coal mine's products.

If the rehabilitation of this mine can be justified, the development of a power plant at the site will be necessary, especially as most of the equipment has already been delivered. It has been estimated that the requirement for electricity for this mine will be lower than the installed capacity, so the excess can be distributed to the public. To use this surplus properly, a distribution and transmission network is needed. Meanwhile, the development of the Agam hydro power plant with 10 MW capacity will also be studied. If its feasibility can be justified, the development plan and its application will be resumed.

c. The Garung Hydro-electric Power Plant (Central Java)

A hydro-electric center with a capacity of 2 x 10 MW is being planned in Central Java. Preliminary work has been completed, and the program can be started.

d. The Ngebel Hydro-electric Power Plant (Central Java)

This power station with 2 x 25 MW capacity will be improved in the near future and used to stabilize the Madiun network.

e. The Karangkates Hydro-electric Power Plant (East Java)

A multipurpose dam at Karangkates is under construction to increase irragation during the dry season and step up the annual rice production. The reservoir may also prevent the flooding which occurs in this area every year.

The dam will be able to increase electric power reserves with an installed capacity of 2 x 35 MW. It is expected that it will be completed in 1971/1972. Meanwhile, a feasibility study and preparation for the construction of a power plant can be carried out.

f. The Seloredjo Hydro-electric Power Plant (East Java)

The Kalikonto dam is being constructed at Seloredjo. The multipurpose nature of this dam is similar to that of Karangkates. It will also prevent flooding and increase irrigation so that the annual production of rice can be increased. There is a possibility of constructing a generating station with a capacity of 30 MW.

g. The Riam Kanan Hydro-electric Power Plant (South Kalimantan)

The Riam Kanan dam will be constructed as part of the development program in Kalimantan. This project will also increase irrigation and control flooding.

Its water power may be used to generate above 20 MW of electric power and its completion is expected within this Five-Year Development Plan period.

h. Tonsea-lama Hydro-electric Power Plant (North Sulawesi)

This is a continuation of an earlier project. Its installed electricity capacity would be above 5 MW and it will be completed within this Five-Year Development Plan period.

In general, the hydro power plants which are now under construction are continuations of previous projects and thus they should be completed. The Karangkates, Kalikonto and Riam-Kanan projects are commonly known as the 3K Project, which was initially financed by Japanese reparations payments and continued with the assistence of Japanese project aid. The planning of any new hydro power plants must be preceded by a survey and a feasibility study.

In addition to electricity generating units using hydro-electric power, there are also units using steam power.

The period of time required for the construction of a steam power unit is much shorter than that for a hydro-electric power unit. Its fuel may be oil, coal, etc. As coal mining is having difficulty marketing its production, it is important to study the use of coal as a fuel for steam generation plants.

The problems confronted by coal are (a) the low cost of natural gas, and (b) difficulties in logistics. Power plants are usually able to use coal to generate their steam power. Therefore, they may be able to help overcome the difficulties faced by the coal mines.

Steam power plants proposed for completion within the next five years are:

(a) Tandjung Priok units III and IV with an installed capacity of 2 x 50 MW;
(b) Palembang (South Sumatra) with an installed capacity of 2 x 12.5 MW;
(c) Makasar (South Sulawesi) with an installed capacity of 2 x 12.5 MW;
(d) Semarang (Central Java) with an installed capacity of 2 x 30 MW;
(e) Medan (North Sumatra) with an installed capacity of 2 x 12.5 MW.

Makasar and Palembang are continuations of projects financed by Jugoslavian credits.

Financing of other projects will be attempted through project aid.

3. Construction of Isolated Power Plants

While the construction of large power units and the expansion of electricity distribution and transmission networks are being carried out, it is considered necessary to complement this program with the construction of isolated power plants comprising small units in various places beyond economical reach of main power systems to encourage the development of light and cottage industries.

In the initial stage, a survey and feasibility study will be conducted, and pilot projects will be established in several places to ascertain the advantages of these centers. Small hydro-electric and small diesel power units are to be used in these centers. Through this approach small power systems can be created to supply rice mills, water pumps, and small village industries in isolated communities remote from the larger power networks. Efforts will be made to gradually extend the electricity system to cover the greater part of the country.

4. Institutional Improvement and Efficiency

In line with its increasing duties and responsibilities, organizations in the electric power area will be improved to ensure maximum efficiency. The ideal of business efficiency would be realized if the enterprise could produce electricity at reasonable cost and provide funds for rehabilitation and capital investment.

The program will be implemented gradually through investment planning which makes possible the attainment of a balance between power generation and distribution, at a more favorable cost per KVA installed.

Also important is the production of commodities domestically to save foreign exchange. In this connection, cooperation or joint-ventures with private firms for the production of electric equipment will be encouraged.

5. Surveys, Feasibility Studies, Research, etc.

In preparing for the rehabilitation and development of power plants, and distribution and transmission networks, it is necessary to carry out a survey, a feasibility study and a design study. Accordingly, more attention will be focused on studies which are to be carried out by Indonesian experts as well as with foreign technical assistance. The Japanese government has already provided a power survey team and the World Bank is prepared to help in this area as well.

One national survey which is presently being conducted in the field of electricity has as its purpose to better ensure efficiency and accuracy in electricity-oriented activities, such as research, planning, development, exploitation, price-setting and management. In power planning a study will be carried out to determine the most beneficial and advantageous mode to be used, i.e. whether hydro-electric power is more advantageous than thermal power using oil, coal, natural gas or natural steam (geothermal energy).

Research activities in the power field also play an important part. Cooperation with other scientific institutions, such as universities, will be promoted in such a way that the development of electricity is not only used for practical purposes, but also for the benefit of science. Laboratory facilities which are available for this research will be actively used.

Studies and rehabilitation will also be conducted in gas. The increased use of gas, particularly in households located in cities, will be designed to substitute for kerosene and firewood as a domestic fuel. A decrease in the use of firewood will indirectly help control floods and land erosion.

It is hoped that a study of gas as a public utility and the rehabilitation of the gas distribution networks will increase fuel energy for public use.

In addition to that supplied by the State Electrical Enterprise, electricity is also produced by industries, mining, plantations, airports, harbors, and other private enterprises. It is rather difficult to estimate the amount of electricity needed in the next five years. As long as the demand for electricity cannot be filled, individual sources must continue to help supply it. To ensure efficient development, electricity generation by various government institutions must be coordinated by the State Electricity Enterprise.

It has been estimated that in the first year of the Five-Year Development Plan the installed capacity will be approximately 659,000 KVA, and that this will be increased by 425,000 KVA in five years through the Five-Year Development Plan, as stated in Table VII-C-1.

On the basis of the policies and the development program described above, it is expected that the installed capacity of electricity can be improved. It is fully recognized that this increase does not yet provide a proportional increase in the supply of electricity for the community, whose needs will not yet be met fully.

The Five-Year Development Plan in the sector of electricity is expected to develop a more favorable balance between generating capacity and distribution capacity by using the funds available, and obtaining maximum benefit from existing facilities.

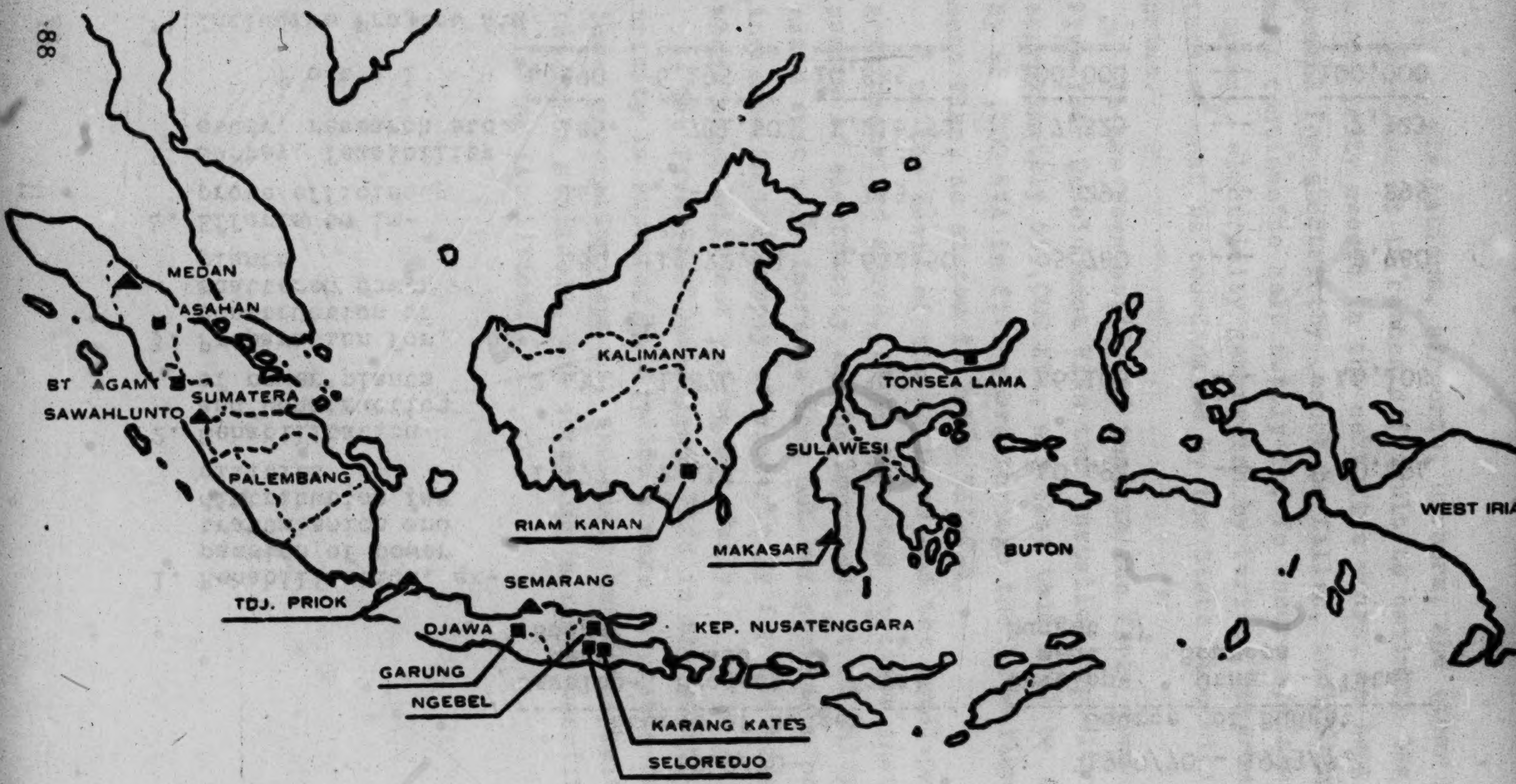
T a b l e VII-C-1

FINANCING OF THE FIVE-YEAR DEVELOPMENT PLAN IN THE POWER SECTOR

1969/70 -- 1973/74, (in millions of rupiah)

	1969/70			1969/70 - 1973/74		
	Source of Budget			Source of Budget		
	Development Budget	Project Aid	Total	Development Budget *)	Other Sources	Total
1. Rehabilitation, expansion of power transmission and distribution facilities	1,177	2,415	3,592	40,494	---	40,494
2. Rehabilitation and construction of power plants	2,433	1,876	4,309	46,108	---	46,108
3. Preparation for construction of scattered power plants	450	1,172.50	1,622.50	5,780	---	5,780
4. Efforts to improve efficiency	145	---	145	295	---	295
5. Survey, feasibility study, research etc.	485	731.50	1,216.50	7,323	---	7,323
T o t a l	4,690	6,195	10,885	100,000	---	100,000

*) Inclusive Project Aid.


MEDAN
ASAHAN
BT AGAMT
SAWAHLUNTO
SUMATERA
PALEMBANG
TDJ. PRIOK
KALIMANTAN
RIAM KANAN
SEMARANG
DJAWA
GARUNG
NGEBEL
KARANG KATES
SELOREDJO
KEP. NUSATENGGARA
TONSEA LAMA
SULAWESI
MAKASAR
BUTON
WEST IRIA

REHAB. DIESEL POWER GENERATION : SCATTERED
TRANSMISSION NETWORK : WEST, CENTRAL AND EAST JAVA,
NORTH AND WEST SUMATERA
DISTRIBUTION NETWORK : WEST, CENTRALAND EAST JAVA,
NORTH AND WEST SUMATERA SCATTERED

■ P.L.T.A. WATER POWER
▲ P.L.T.U. THERMIC POWER

SUB SECTOR : ELECTRIC PO
ELECTRIC PO

CHAPTER VIII

COMMUNICATIONS AND TOURISM

A. COMMUNICATIONS

Introduction

The place and functions of communications in the Five-Year Development Plan are related to the provision of facilities for the smooth flow of commodities and people required for the economic development and social welfare of Indonesia.

The Five-Year Development Plan is concerned with increasing economic development, with special emphasis on the agricultural sector. Thus it is appropriate that communication systems be rehabilitated, improved and expanded to fulfil their functions in facilitating development.

It cannot be denied that communications in their present condition lag far behind society's normal demands for communication services. In the past, an increase in the demand for communication services has not been followed by an increase and expansion of communication facilities. Thus a challenge is faced to simultaneously meet the increasing need of communication services for economic development and to close the existing gap between lagging facilities and the normal consumption of communication services.

The challenges must be faced with the limited financial resources of Rp.230 billion. It is therefore most important that rehabilitation, expansion, and development of communications are carried out carefully to ensure optimum utilization of limited funds and other resources.

The Five-Year Development Plan will attempt to meet these challenges. A successful implementation of the development program set forth here will be expected to yield the following results:

After five years, part of the road network will have been improved and rehabilitated making possible a smoother flow of road traffic. Realistically viewed, the problem of increased traffic volume can only be solved over a ten-year-period with the provision of a good road network. Within the next five years attempts will be made to improve the quality of existing roads.

With improvement of the road networks and establishment of better working conditions, road transportation will develop more rapidly and in a more orderly manner.

The rehabilitation of railways can only partially be completed by the end of the Five-Year Development Plan. It is hoped, however, that train services will have been improved considerably by that time.

Regarding sea communications, the important components and facilities of the sea communication infrastructure will have been rehabilitated and services improved.

Regarding air transportation, it is expected that most of the efforts to improve and rehabilitate the main airstrips, including their facilities, could be completed. It is expected that modernisation efforts will also be initiated. Meanwhile services, specifically for domestic as well as foreign tourists, have already been significantly expanded.

Regarding postal services and telecommunications, it is expected that the postal and clearing services will expand. With telecommunications, efforts toward rehabilitation will largely have been completed and a more significant step toward modernization can also be taken.

To attain the above objectives, the basis for the communication policies is that the Government restricts itself solely to activities which truly represent its duties and obligations, primarily in infrastructure creation. The operation of transportation is left to the initiative of the private sector and in this case the Government is obliged to create a climate which will induce the growth of private undertakings without deviating from the existing laws.

To increase efficiency, a policy will be followed to improve the institutions and agencies concerned with communications.

As a result of these investments and implementation of the above policies it is expected that there will be appreciation and understanding on the part of the consumers of communication services. In this way a sound basis can be laid down for cooperation between the consumer, the producer of services and the Government so that the function and tasks of communications as an infrastructure for increasing the pace of economic development and improving the existence of the Indonesian people can be realized.

I. DEVELOPMENT OF THE LAND TRANSPORTATION SECTOR

1. Roads

Road networks function in a way similar to the arteries in the human body. Roads are important not only for the smooth flow of goods in the promotion of economic development, but also for the smooth flow of people in the promotion of National unity.

Because of their important function, roads have been allocated the largest share of the total investment in land communication in the Five-Year Development Plan.

1.1 Situation and Problems

According to the most recent statistics of 1967, the total length of Indonesia's roads is approximately 83,854 kilometres. They are divided into state, provincial (first degree region) and "Kabupaten" (second degree region) roads.

About 17 per cent of the total length of 10,139 kilometres of the state road network is in good condition and 10 per cent of the 22,682 kilometre provincial road network is in good condition. Of the "Kabupaten" roads, with a total length of 51,031 kilometres, none is in good condition.

This means that about 5 per cent of the total network is in good condition. If the roads in moderate condition are added to this total, the percentage increases to 30 per cent, that is, almost 70 per cent of Indonesia's total road network is in poor condition.

Almost all existing roads were built during the Netherlands East Indies colonial administration and road construction was based on traffic conditions and demands prevailing at that time.

Meanwhile the volume of traffic has been increasing. This is reflected by the traffic intensity, the increase in load capacity and velocity of the vehicles. All this represents an added burden on the existing networks.

Against this increase in traffic, there is an imbalanced maintenance and rehabilitation of the existing roads. It is understandable that the roads slowly crumble and deteriorate. It is assumed that the condition of existing roads declines each year from good to moderate to bad or very bad

The damage to certain parts of the network causes a shift in traffic flow to better roads. In this way the good roads become overburdened and soon they too crumble, causing a spiralling process of road decline.

The central problem is how to improve the roads so that they can accommodate the increase in traffic.

This problem must be solved within five years with a limited budget of Rp.100 billion.

Traffic intensity, load capacity and velocity of vehicles are considerably higher compared to the situation under the Netherlands East Indies colonial administration. This necessitates an improvement of roads to place them in a higher category.

Four criteria are used to reclassify improved roads. These are the road's function, the vehicle velocity, the traffic intensity and the load capacity.

Based on a load capacity criterion, the existing road network is divided into A-class roads (8 tons), B-class roads (5 tons) and C-class roads (2 tons).

Based on the traffic intensity criterion, there are First Class roads with 10 transport units/hour and a construction width of 3.5 metres, Second Class roads with 600 transport units/hour with a construction width of 7 metres. Third Class roads with 1,000 transport units/hour with a construction width of 10 metres and Fourth Class roads with 2,400 transport units/hour with a construction width of 2 x 7.5 metres.

According to the criterion of the road's function, economic roads represent those linking production areas with consumption areas, the surplus areas with deficit areas, the interior with export harbors, and the tourist routes. Other functions of roads are for administration, defence and security, and social purposes.

1.2 Policies and Measures

On the basis of the current condition of the road networks, and taking into account the expécted growth of traffic, road policies under the Five-Year Development Plan will include:

1. improving roads toward a higher classification. This is to be carried out simultaneously with improvement of bridges.
2. rehabilitation of road networks to their original classification. This also applies to bridges.
3. the survey, planning and preparation for the building of new roads.
4. control over the use of the roads by vehicles which must be in proportion to the classifications of load capacity and traffic intensity.

It is estimated that the cost per kilometre for road improvement is as much as three times that for road rehabilitation. On the other hand the maintenance cost of rehabilitated roads is higher than that of upgraded roads. Efforts will be made to gradually decrease the cost per kilometre to an acceptable level.

Road improvements will be carried out in the first year of this Development Plan. At the same time a nation-wide road survey is to take place in joint cooperation with the United Nations Development Program and the World Bank. This survey will be useful for drawing up a more detailed plan for road improvement.

Of no less importance, in connection with road network improvement, is maintenance of road building equipment. For this reason it is planned to set up 19 workshops scattered throughout the nation.

In addition efforts will be made to gradually manufacture the road building equipment needed domestically. In this

Five-Year Development Plan there will be co-ordination between the demand for road building equipment and the development of an infrastructure industry.

Asphalt is a vital material for road building. Part of the required asphalt is already being produced domestically. As road construction planning requires a regular supply of asphalt, it is also important to plan for the provision of asphalt from domestic as well as from foreign sources. Asphalt supply plans should be worked out jointly by the asphalt plants, the import planning by the Department of Trade and the consumption planning by the Department of Public Works and Power.

Considering the demand for asphalt which is bound to increase because of the forthcoming extensive road building, it is necessary that the asphalt plants in Wonokromo and Pangkalansusu be rehabilitated. The asphalt production of Buton should also be increased.

In addition to the rehabilitation of asphalt plants and efforts to increase production, a smooth and more efficient distribution plan should also be formulated.

Also important is the control of road use. The roads will easily deteriorate if used recklessly and without regard to their respective classification. Tighter control is needed to ensure that vehicles use roads according to load capacity and classification.

Regional governments play an important role in carrying out this task. More discipline is required to adapt road traffic to road classifications.

The limited funds available restrict new road construction works, while there are still many roads which must be repaired.

Therefore it should be the responsibility of everyone to see that the roads are used efficiently and carefully so

T a b l e VII-B-1

REHABILITATION/IMPROVEMENT PLAN OF STATE AND PROVINCIAL ROADS AND BRIDGES 1969/70 - 1973/74

Province	Roads (in kilometres)			Bridges (in metres)		
	Rehabilitation	Improvement	Total	Rehabilitation	Improvement	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Atjeh Special Region	1,060	220	1,280	4,340	1,100	5,440
2. North Sumatra	1,760	440	2,200	6,860	1,200	8,060
3. West Sumatra	800	360	1,160	4,728	900	5,628
4. Riau	530	70	600	3,130	500	3,630
5. Djambi	700	80	780	2,800	500	3,300
6. South Sumatra	2,150	280	2,430	7,876	1,500	9,376
7. Lampung	500	120	620	2,216	500	2,716
8. South Kalimantan	200	125	325	1,240	300	1,540
9. East Kalimantan	80	50	130	800	200	1,000
10. West Kalimantan	135	145	280	1,600	400	2,000
11. Central Kalimantan	5	40	45	300	100	400

(1)	(2)	(3)	(4)	(5)	(6)	(7)
12. South Sulawesi	355	340	695	2,820	700	3,520
13. South East Sulawesi	65	100	165	1,000	200	1,200
14. North Sulawesi	35	410	445	2,440	500	2,940
15. Central Sulawesi	45	210	255	1,600	400	2,000
16. Bali	100	350	450	1,500	600	2,100
17. West Nusatenggara	150	80	230	1,400	200	1,600
18. East Nusatenggara	100	400	500	800	2,000	2,800
19, Moluccas	30	70	100	300	100	400
20. West Irian	225	---	225	250	---	250
21. West Java	600	765	1,365	5,000	1,200	6,200
22. Central Java	600	635	1,235	4,800	1,200	6,000
23. Jogjakarta Special Region	120	30	150	600	200	800
24. East Java	880	630	1,510	5,600	1,200	6,800
25. Djakarta Metropolitan Area	---	50	50	---	300	300
Total	11,225	6,000	17,225	64,000	16,000	80,000

that their benefits can be enjoyed longer.

1.3 Development Targets and Locations

Under these policies the physical targets for the next five years are:

		1969/70	1969/70 - 1973/74
1.	Improved roads	1,546 Km.	6,000 Km.
	Improved bridges	4,000 M.	16,000 M.
2.	Rehabilitated roads	1,820 Km.	11,225 Km.
	Rehabilitated bridges	6,000 M.	64,000 M.
3.	New roads	40 Km.	305 Km.
4.	Workshops	4 plants	19 plants

These targets should be reached using an allocation of Rp.8.701 billion for 1969/70 and Rp.100 billion for the Five-Year Development Plan.

Compared with the demand for improvement and rehabilitation of roads and bridges, it is obvious that these targets will not satisfy the full need for road improvements in the next five years. Road improvements which approach traffic requirements are estimated to be feasible within ten years.

A careful selection of roads to be improved is therefore required. Trade routes are given priority in the next five years. Elaboration of these projects is presented in Table VII-B-I.

Efforts involving roed improvements and rehabilitation as well as the construction of new roads should always be preceded by a feasibility study and survey. This will ensure the efficient use of financial resources and the quality of the roads.

2. Main Road Transportation

After reviewing the situation and planning the improvement of road networks, it would be appropriate to next examine the user of the roads, i.e. the motor vehicles.

2.1 Situation and Problems

It is estimated that there were 291,969 motor vehicles, excluding motor cycles, in 1968. Nearly 58 per cent of this total was passenger cars, the remainder being trucks and buses.

46 per cent of this total was being used for public transportation. It is assumed, however, that about half of the vehicles were not in running condition. This reduces the number of motor vehicles which were being used for public transportation to only 23 per cent of the total.

As a heritage of earlier policies there are at present more than 75 trade-marks of motor vehicles in Indonesia. This is certainly impractical and inefficient from the viewpoint of maintenance and spare parts supply.

In general the motor vehicles are being operated by privately-owned enterprises. In many cases, however, state-owned vehicles are run on civic missions to meet private demand for transportation.

Based on the assumption that the life of a motor vehicle is ten years, or 10 per cent depreciation a year, as against an estimated population increase of about 2.5 per cent a year, it may be concluded that the number of vehicles must be increased by 12.5 per cent annually. In the initial phase this problem can be solved by rehabilitating existing vehicles.

The policy of increasing the number of road vehicles should also take into consideration the improvement of roads being carried out so that the available transportation material can be used most effectively.

On the basis of the present situation, the current concern is to increase the supply of vehicles to facilitate the smooth flow of goods and people and therefore be beneficial to economic development and Nation building.

2.2 Policies and Measures

Road transportation policies are designed to achieve:

(a) lawful procedures, i.e. the completion and improvement of traffic and main road transportation laws including the related government regulations, and observance of their implementation;

(b) an orderly delegation of authority, i.e. a firm division of tasks and authority between the agencies concerned with regulating traffic and road transportation in order to coordinate their activities;

(c) an orderly system of business enterprise, i.e. to secure equal opportunity and sound competition between the owners/operators of public transportation.

The purpose of these policies is to make possible the creation of a climate that will encourage the development of road transportation enterprises and promote traffic safety to ensure a smooth flow of goods and people.

2.3 Development Targets and Locations

To achieve these objectives, road transportation development plans cover:

1. the creation of an encouraging climate for business activities in order to stimulate the supplying of vehicles;
2. the provision of infrastructure facilities to improve road transportation.

Most road transportation is operated by privately-owned enterprises. It is therefore the responsibility of the Government-- through its policies -- to create a climate conducive to business activities which would encourage an increase in the supply of vehicles and the establishment of maintenance shops by private entrepreneurs. These activities are handled by the private business sector and include the repairing of defective vehicles and the assembling of domestic as well as imported vehicles.

Based on earlier experiences it is estimated that there will be a normal increase of approximately 1,500 to 2,000 vehicles annually. Assuming that their average load capacity is 2.5 tons each, traveling about 150 kilometres a day each and operating for 300 days each year, it may be estimated that the additional annual increase of vehicles will be able to accommodate 9 to 15 million tons of cargo or 1.5 to 2.25 billion tons/km.

It is therefore planned to add an additional 9,258 new vehicles to increase the number of trucks and buses within the next five years. This will raise the total number of trucks and buses from 46,634 to 55,892 vehicles by the end of the Five-Year Development Plan.

A vital category of road transport which requires attention is public transportation within the cities. This should be upgraded and wherever possible operated by private enterprises.

Routes, maintenance facilities and efficient collecting of fares are important factors influencing the growth of city bus lines.

Also of vital importance -- aside from the problem of the supply of vehicles -- is the arrangement of infrastructure facilities for motor traffic, such as traffic lights, safety sign boards, street lighting, etc. The provision of these facilities will be entrusted -- as far as possible -- to the regional governments.

To avert excessive damage to roads by transportation equipment and motor vehicles with load capacities which exceed the road classification limit, it is necessary to control the tonnage of vehicles in accordance with road classifications.

Weighbridges play an important role. In addition they are also needed for collecting statistical data.

The providing of weighbridges, alone, is not enough. Also important is the implementation of control over transport vehicles on the one hand, and, on the other hand, understanding and discipline, in observing the transport regulations on the part of the vehicle users.

The building of terminals, crossing lights, and other infrastructural transport facilities depend on the availability of sufficient funds. Normally these facilities are provided by the regional government or municipality.

II. RIVER TRANSPORTATION

1. Situation and Problems

In regions with underdeveloped road networks but large rivers, the latter can also function like roads to help the flow of goods and people.

Rivers which perform the function of roads are mainly to be found in Kalimantan, Sumatra and West Irian. Some of the large rivers in Kalimantan are the Kapuas, Barito, Kahajan, Sampit and Mahakam. In addition, as a by-product of the tidal project, there are also canals to be found in Kalimantan. These canals can serve as a transportation infrastructure. Some of the canals are Tamban, Marabahan VI, Serapat, Besarang and Kelampan.

In Sumatra, large rivers which could function as roads are, for example, the Batanghari, Asahan, Siak, Indragiri and Musi rivers.

In West Irian the Digul and Memberamo rivers are found. The main characteristics of these rivers are that they are navigable far into the interior and that they have already been serving as a transportation facility for exports and for the traffic of commodities and people.

The task is to promote river utilization as a transportation facility for the flow of goods to benefit the economy as well as for the flow of people for the development of National unity. This is primarily applicable to regions without good land communication facilities.

2. Policies and Measures

Improvements in river transportation must be made in order to stimulate economic and social development. To this end, the following policies have been designed:

1. to create a stimulating climate that will encourage private initiative to increase the supply of river transportation equipment;
2. to develop and maintain the river transportation infrastructure.

River transportation is normally operated by private enterprises. The Government should therefore create a climate conducive to the encouragement of private initiative to provide more river transportation equipment and to operate it more efficiently.

In this connection, safety and dependability are most important to the users of river transport.

Parallel with efforts to use the rivers more effectively as a transportation facility, industrial activities supporting river transportation will also be stimulated. Boat construction and similar activities are part of the infrastructural and cottage industries.

3. Development Targets and Locations

In line with these policies, efforts will be initiated to set up a river transportation infrastructure in the form of terminals and other facilities along nine rivers. These are the Asahan, Siak, Indragiri, Batanghari and Musi in Sumatra; and the Kapuas, Kahajan, Barito and Mahakam in Kalimantan.

Each terminal will have a pier and several storage buildings. The construction will be preceded by a feasibility study and a survey of the effectiveness of such infrastructural facilities.

Of no less importance is the maintenance of rivers. This includes dredging and reforestation.

III. RAILWAY TRANSPORTATION

1. Situation and Problems

At present railways are to be found in Java and Madura, and in Atjeh, North Sumatra, West Sumatra and South Sumatra. In general, railways are more than 40 years old. About 70 per cent of the railway bridges are also more than 40 years old. The tracks are in a serious condition. It was estimated in 1968 that about 7.4 million sleepers needed replacing.

Much of the rolling stock is also obsolete. About 40 per cent of the engines are more than 40 years old. 60 to 70 per cent of the carriages and vans are more than 40 years old. 40 per cent of them are not in running condition.

Regarding the telegraphic department, only 20 per cent of its obsolete equipment is working. Telephonic equipment in working condition totals only 15 per cent. The radio communication system is still in the preliminary stage of development.

The ferry boats operated by the railways are also becoming obsolescent.

The prevailing conditions of the railways are those of obsolete equipment and under-capacity operation. Owing to these conditions, the main tracks in Java perform only about 70 per cent of the nominal standard, and the feeder tracks about 60 per cent.

These conditions affect to a great extent the efficiency of railway operations and constitute a principal cause of accidents. To prevent accidents, the speed of the trains is restricted. This, in turn, has led to the low frequencies of train schedules.

2. Policies and Measures

As a result of the population increase, economic needs and other factors, the demand for transportation has been increasing ever since the end of World War II and the Independence War. While the volume of traffic has been increasing, the facilities have not increased proportionally.

Main road networks have not been rehabilitated and improved proportionally, so that transportation in general faces difficulties. In regions where traffic can make use of other transportation such as railways, railway transport increases rapidly.

The maintenance and expansion of railway facilities have not increased in proportion to the increase in demand for rail transportation. One reason is that train fares have been fixed at a certain level because of the "public utility" function of railways. Because of raging inflation, the train fares have declined in real value with the result that the funds generated for maintenance and repair have been insufficient.

In the meantime, the number of employees has increased from 60,500 (1942) to 80,000 (1968). As a result of this excessive number of personnel, 60 per cent of the exploitation costs of the railways is made up of salaries and personnel benefits. Even though this expenditure is large, the employees are individually still underpaid.

It is very obvious that a process of "capital erosion" has been going on during all this time as a result of the conditions described above and non-replacement of equipment.

To preserve safety and continuity of railway operations a policy has been followed of reducing the speed of trains. For this reason the present railway activities and train speeds are below the nominal standard prevailing before World War II. Deterioration in the quality of services is unavoidable.

A study of conditions prevailing in the infrastructure of roads and land transportation in general makes it obvious how serious the situation is, and that it will take a long time to rehabilitate this infrastructure and bring it up to a level in proportion to the demands of modern traffic.

The limited funds necessitate the optimum use of each rupiah and dollar of foreign exchange. This means that a study must be made of the cost-benefit ratio of any proposed project and that the choice must be given to that project giving the greatest benefit.

The infrastructural condition of land transportation makes necessary a division of labor and burden between the road and rail transport to meet the rising demands of modern traffic. At present, the railways still represent an economic transport media for long distance and mass transportation.

On the basis of this assessment, the policies for rail transport are designed to restore the railways to their principal function which is that of a long distance freight carrier in addition to carrying passengers. Gradually the impression should be erased that railway transportation is a social facility. The railway system must perform its public utility function to the greatest extent possible. This, however, does not in any way mean that it should be treated as a social institution which may continue to suffer losses.

In carrying out railway development policies, emphasis is put on rehabilitation. Priority is given to rehabilitation of tracks and railway bridges, and the repair and modernization of obsolete rolling stock the use of which could not be condoned from a safety or economic point of view.

There is no urgency to expand the existing railway network under the Five-Year Plan. On the contrary, whenever needed and wherever other transportation alternatives exist, some routes of minor importance can be discontinued.

The railway service is open to private investments of domestic or foreign capital on the basis of joint cooperation. Priority is given to domestic or foreign private capital participating in opening up new routes or filling the missing connections.

Through the policies and measures mentioned above, it is hoped that at the end of the development program there will be a railway transportation system which will operate safely, smoothly and on schedule, in addition to a general shortening of the travel time to the level of 1939 (for example, the train journey between Djakarta and Surabaja may be shortened from 14 hours to 12 hours).

3. Development Targets and Locations

3.1 The target that it is hoped will be reached by the end of 1969 is 75,000 train/kilometres per day, to be increased to 93,000 train/kilometres per day at the end of 1973. This target is based on the estimate that the railway transport demands in 1973 will reach the following figures: 203 million passengers, 11 billion passengers/kilometres; and 6.9 million tons of freight with 1.6 billion ton/kilometres.

3.2 The rehabilitation and improvement of roads and buildings are as follows:

a. Rehabilitation of routes and replacement of tracks. See Table VIII-B-2.

b. Replacement of sleepers: The replacement of the tracks as described above is carried out simultaneously with the replacement of damaged sleepers. A total of 660,000 sleepers need to be replaced each year while a total of 7.4 million sleepers should have been replaced at the end of 1968.

c. Replacement/renovation of bridges. Priority is given to bridges which no longer meet the necessary requirements and their implementation will be in line with the railway routes' development.

d. Some railway yards will be extended to speed up crossings and shuntings. The place and facilities for the loading and unloading of freight at certain terminals will be given special attention in order to prevent stagnation in the flow of goods.

These rehabilitation works are designed to increase the capacity of the tracks so that they may carry trains traveling at a speed of 100 kilometres per hour, particularly on the Tjikampek-Surabaja, Tjirebon-Madiun and Djakarta-Palembang routes.

3.3 Signals, Telecommunication and Electronics

Construction of signals will emphasize the simplification of the equipment system, standardization of the signs, and improvement of the safety system. Telecommunications will emphasize improvement of the transmission and communi-

Table VIII-B-2

RAILWAY NETWORK REHABILITATION PLAN
1969/70 - 1973/74
(including replacement of tracks with new R14's)

Year	Routes to be rehabilitated	Distance of Routes	Length of Tracks to be replaced within the next 5 years	Length of Routes to be Rehabilitated in Corresponding Years
		(Km)	(Km)	(Km)
1969/70	Tjikampek-Surabaja/Pasarturi	642	589	100
	Total			100
1970/71	Tjikampek-Surabaja/Pasarturi	642	589	80
	Prupuk-Jogjakarta	223	183	30
	Kisaran-Medan	165	165	40
	Total			150
1971/72	Tjikampek-Surabaja/Pasarturi	642	589	80
	Prupuk-Jogjakarta	223	183	30
	Baturadja-Pandjang	228	228	40
	Total			150
1972/73	Tjikampek-Surabaja/Pasarturi	642	589	80
	Prupuk-Jogjakarta	223	183	30
	Baturadja-Pandjang	228	228	45
	Total			155
1973/74	Tjikampek-Surabaja/Pasarturi	642	589	75
	Prupuk-Jogjakarta	223	183	35
	Baturadja-Pandjang	228	228	50
	Total			160
	Grand Total			715

T a b l e VIII-B-3

REPLACEMENT/EXPANSION PROGRAM OF THE RAILWAY'S ROLLING STOCK
1969/70 -- 1973/74

Year	In Running Condition				Replacements/Additions				Explanations
	Locomotive Engines		Carriages	Vans	Locomotive Engines		Carriages	Vans	
	Steam	Diesel			Steam	Diesel			
1968/69	489	268	1,229	9,686	---	--	--	---	1. Including 297 steam powered engines more than 40 years old.
1969/70	489	285	1,229	9,686	---	17	--	---	
1970/71	489	297	1,249	9,886	---	12	20	100	2. Excluding 2,092 carriages more than 40 years old.
1971/72	489	309	1,249	10,086	---	12	--	100	
1972/73	489	324	1,249	10,286	---	12	--	100	3. Excluding 15,232 vans more than 40 years old.
1973/74	489	341	1,249	10,386	---	12	--	100	
T o t a l					---	65	20	400	

cation systems both for the railway and the ferry services.

3.4 Ferry Service

Besides improving the ferry services between Udjung and Kamal, and between Ketapang and Gilimanuk, special attention will be given to upgrading the ferry service between Merak and Pandjang because of the increase in traffic between Java and Sumatra.

3.5 Replacement and Renovation of Rolling Stock

Additions to, and renovation of, rolling stock are planned as shown in Table VIII-B-3.

3.6 Improvement in Supplies and Logistics

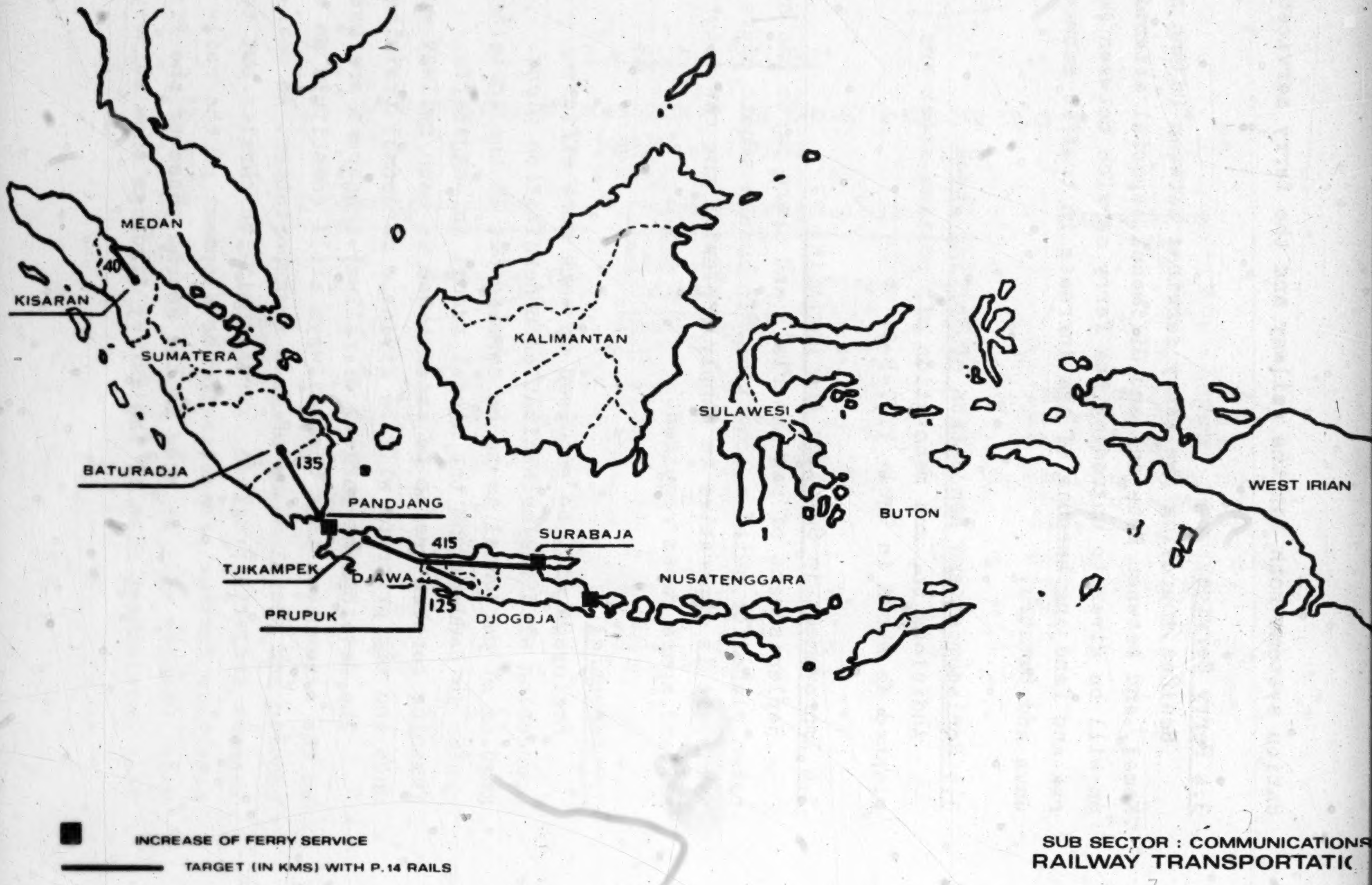
Replenishment of raw materials and spare parts has not taken place for quite a long time. To ensure smooth operations, it is imperative to supply/replenish the raw materials and spare parts required.

3.7 Personnel

Employees will be required to work more efficiently in connection with the mechanization/modernization plans. Upgrading of personnel is to be carried out at the training center in Bandung and the diesel school in Jogjakarta. Training centers are to be established in each railway workshop and top priority will be given to personnel training.

The development targets of railway transport are based on the assumption that the railways still constitute an economic and social means of mass transportation. As development projects progress, surveys will be carried out to ascertain further prospects for development of the railways. Changes will be made in the second phase of the Five-Year Development Plan if the survey findings show railway

SUB SECTOR : COMMUNICATIONS
RAILWAY TRANSPORTATI


MEDAN
40
KISARAN
SUMATERA
BATURADJA
135
PANDJANG
TJIKAMPEK
PRUPUK
DJAWA
415
125
DJOGDJA
SURABAJA
KALIMANTAN
SULAWESI
BUTON
NUSATENGGARA
WEST IRIAN
INCREASE OF FERRY SERVICE
TARGET (IN KMS) WITH P.14 RAILS

transport no longer functions as an economical and social means of mass transportation.

IV. DEVELOPMENT OF THE SEA COMMUNICATIONS SECTOR

1. Commercial Fleet

1.1 Situation and Problems

In the middle of 1968, the Indonesian commercial fleet consisted of 260 vessels with a combined load capacity of approximately 660,650 DWT. This comprised 221 vessels for inter-island shipping with a total load capacity of about 306,250 DWT and 39 ocean-going vessels with a total load capacity of 354,400 DWT.

23 vessels with a load capacity of approximately 50,000 DWT were available for tramp service. In addition, there was also a fleet of tugboats and barges (sea trains) consisting of 10 tugboats with a capacity of about 7,180 HP and 35 barges with a load capacity of approximately 8,640 DWT.

The fleet for local shipping consisted of about 355 vessels with a total load capacity of 36,900 DWT. There was also a fleet of sailing vessels estimated to comprise 10,000 ships with a total load capacity of about 30,000 tons.

Following is the development of the national commercial fleet over the past five years:

	Inter-island Shipping			Ocean-going Shipping		
Year	Number of Vessels	DWT	Incr. + Decr. -	Nember of Vessels	DWT	Incr. + Decr. -
1964	332	305,785	- 0.7%	29	227,920	+114.0%
1965	197	281,205	- 8.0%	49	402,800	+ 76.7%
1966	190	268,405	- 4.5%	45	370,100	+ 8.1%
1967*	225	303,536	+13.0%	35**	352,300	- 5.7%
1968	221	306,250	+ 0.8%	39	354,300	+ 0.6%

* Including 5 vessels (app.6,250 DWT) under hire-purchase

** Including 21 vessels (app.213,200 DWT) under hire-purchase.

The rapid increase in tonnage of the ocean-going fleet in 1964 resulted from the procurement of vessels on a hire-purchase basis. Formerly, foreign vessels had been chartered to meet the demand for ships.

The decrease in the fleet's tonnage was the result of the sale of obsolete vessels or those which no longer met the requirements.

The existing capacity of the inter-island fleet is actually able to accommodate the demands for inter-island sea transportation for the years to come considering that only about 4.5 ton/DWT currently is carried annually by the inter-island fleet whereas in the past this figure could reach from 15 ton/DWT to 17 ton/DWT annually.

The set-back was caused by various factors such as the condition of the sea transport infrastructure, lack of experts/skilled personnel and the problem of over-employment in several shipping companies.

Ships requiring a fast turn-around could not obtain the facilities needed. The poor harbor and terminal facilities including the gullies, delays in the docking and repairing of ships, inadequate docking and repair facilities for ships, an inadequate supply of spare parts and equipment and insufficient funds, inadequate navigation safety facilities such as buoys, etc., and the poor telecommunication system were some of the factors which caused the set-back.

As a result of inadequate docking space facilities, the lack of spare parts and equipment, as well as the lack of money, approximately 30 per cent of the inter-island fleet was always being delayed for docking/repair.

Concerning ocean-going shipping and the existing fleet, the percentage of freight which could have been accommodated in the past five years (1964, 1965, 1966, 1967, 1968) by the national shipping companies was about 9.2, 23, 12.7, 10 and 23 per cent respectively of the total volume of Indonesian imports and exports.

This meant that the greater part of Indonesia's foreign trade was still being shipped by foreign carriers.

Such a situation burdens Indonesia's balance of payments as approximately 10-20 per cent of import and export values goes on foreign carriers in the form of freight. Some of the principal causes for this are the limited tonnage of the national fleet, stiff competition from foreign vessels (mainly trampers), lack of coordination between the ships' schedules and the freight's load readiness in the ports, and the still inefficient turn-around time of the national ships due to various factors such as inadequate port facilities.

1.2 Policies and Measures

To overcome the difficulties described above, the policies under the Five-Year Development Plan 1969-1973/74 emphasize:

(a) increasing the productivity of the national commercial fleet;

(b) eliminating the various structural, functional and operational obstacles.

Reforms of the shipping companies, in addition to steps for the rehabilitation and replacement of the fleet, are therefore needed.

Domestic shipping policies follow the following principles:

(1) Domestic shipping is to be built up in accordance with the guiding principles of the "Wawasan Nusantara" (the concept that the entire Indonesian archipelago, including the seas between the islands, is one indivisable entity) taking the form of setting up a regular shipping service throughout Indonesia.

(2) The operation of this regular inter-island shipping service is to be upgraded in proportion to the growth of trade patterns throughout Indonesia represented by the centers for the accumulation of local products and distribution of freight to the regions concerned.

(3) The regular liner service should be supported by local shipping, small owners' shipping and inland waterways shipping.

(4) This regular liner service is to be operated jointly so that it will evenly cover the entire archipelago and at the same time correct the imbalanced situation between ready-for-shipment freight and available ship space, and eliminate the unfair competition from foreign ships and non-commercial national flag-flying vessels.

(5) To support the establishment of trade centers which also serve as centers for the regular shipping network, it is urgent to improve accumulation and transshipment, and to review the seaport region and the criteria

for determining seaports and their classification.

(6) The activities of the shipping agencies and the cargo forwarding companies at seaports and other port activities have to be intensified as the principal supporting components.

Foreign shipping policies are based on the "liner system" for both long-haul and short-haul ocean-going vessels. They are designed to build up an international shipping service whereby -- as part of government efforts to increase export activity and intensify economic activity in general -- Indonesian shipping will obtain a fair share of international freight traffic to and from Indonesia while realistically taking into account the enterprises' potential efficiency and services.

The above policies and measures are expected to increase the effectiveness and efficiency of inter-island sea transportation, making more regular port calls possible, while foreign sea transportation can also be developed gradually. It is hoped that these tasks will be accomplished by the end of the Five-Year Development Plan.

1.3 Development Targets and Locations

a. Inter-island Shipping Fleet

The inter-island shipping fleet's development efforts for the next five years will stress the upgrading of the existing fleet's capacity to meet the increasing demand for transportation. For this purpose rehabilitation of the fleet is necessary, as shown in Table VIII-C-1.

The present volume of inter-island trade, including the trade with Singapore, is about 1.6 million tons per year. Assuming a growth in the trade traffic volume at an annual average of 5 per cent, it is estimated, because of the im-

Table VIII-C-1

REHABILITATION/REPLACEMENT PLAN FOR THE COMMERCIAL SHIPPING FLEET

1969/70 - 1973/74

Number/Tonnage of Vessels

	Inter-island						Ocean-going						Totals	
			Rehabilitation		Replacement				Rehabili-tation		Replacement			
Year	Number	DWT	Units	DWT	Units	DWT	Number	DWT	Units	DWT	Units	DWT	Units	DWT
1968/69	221 1)	306,250	---	---	--	---	39 2)	354,400	--	---	--	---	260	650,6
1969/70	194 3)	266,450	90	130,000	--	---	39	354,400	--	---	2	18,800	233	620,8
1970/71	194	266,450	10	10,000	10	10,000	39	354,400	--	---	2	18,800	233	620,8
1971/72	194	266,450	10	10,000	11	13,000	39	354,400	--	---	3	27,600	233	620,8
1972/73	194	266,450	10	10,000	11	13,000	39	354,400	--	---	3	27,600	233	620,8
1973/74	194	266,450	11	12,000	11	12,000	39	354,400	--	---	4	36,400	233	620,8
Total			131	172,000	43	48,000					14	129,200		

Notes:
1) Excluding vessels of less than 500 BRT.
2) Including 21 ships under hire-purchase (app. 213,200 DWT).
3) 27 Vessels sold.

plementation of the Five-Year Development Plan, that this will increase to approximately 2 million tons by the end of 1973/1974.

A minimum tonnage of 250,000 DWT of fleet space would be required if the economic efficiency target of the inter-island fleet is to be raised from 4.5 ton/DWT annually to about 8 ton/DWT. If, contrary to earlier estimates, the trade volume increases faster and efficiency is lowered, it would be sufficient to have an inter-island fleet of approximately 266,450 DWT equalling 194 vessels. The existing fleet would have to be reduced by 27 ships equalling 39,800 DWT.

An important pre-condition for establishing a regular shipping service is the rehabilitation of a large number of ships in the first years of the Five-Year Development Plan. The following years would require more routine maintenance and rehabilitation of the ships. Implementation of the proposed development projects is entrusted to the domestic shipping companies.

b. Ocean-going Fleet

Efforts in ocean-going shipping are directed toward increasing the capacity of the national ocean-going vessels to enable them to receive a fair share of Indonesia's foreign trade volume.

For this purpose it is of vital importance that their operational capacity be increased. Many vessels are obsolete, lowering the shippers' confidence, and causing higher insurance rates and claims, as shown in Table VII-C-1.

In addition, efforts could also be made to change the hire-purchase vessels into entirely Indonesian-owned ships.

Indonesia's present foreign trade volume, excluding oil, is approximately 4.2 million tons/M3, and it is estimated that at the end of the Five-Year Development Plan this figure may have risen to about 5.2 million tons/M3. Indonesia's foreign trade, excluding oil, consists of 45 per cent general cargo and 55 per cent bulk commodities.

The development of national ocean-going shipping must therefore be aimed at receiving a proper share of this trade.

The target to be reached in stages is a cargo share of 40 per cent of Indonesia's foreign trade volume.

It is the task of the national shipping companies to work out the problems of financing replacements or additions to their fleets while taking into account the possibilities of joint cooperation with foreign capital.

c. Local Shipping Fleet

The development of local shipping stresses measures for the rehabilitation of existing ships and also replacing them. Priority is given to the mobilization of resources from within the local community and regions.

d. Tramp and Tugboat Service

The development of tramp services to meet the demands for transport of freight which must be carried in ships with special characteristics to meet industrial requirements, is entrusted to private initiative and both domestic and foreign private capital.

Regarding the tugboat fleet, efforts will be undertaken to rehabilitate 82 tugboats, 66 steel lighters and 202 wooden barges.

e. Sailing Vessels

The development activities with respect to sailing vessels emphasize a study of their modernization and improvement in their safety standards. Modernization efforts are entrusted entirely to the private sector.

V. HARBORS AND OTHER INFRASTRUCTURE

1. Situation and Problems

In Indonesia there are 61 sea harbors and 17 coastal harbors which are open to restricted foreign trade, and hundreds of harbors serving exclusively domestic trade. The general condition of these harbors and their facilities is not encouraging. Most of the harbor facilities cannot properly perform their function because of the following conditions:

(a) of the quays and piers, about 75 per cent of the wooden quays are in a dilapidated condition;

(b) about 30 per cent of the storage buildings are sub-standard;

(c) of the fresh water facilities, only about 30 per cent of the ships' total need for fresh water can be provided;

(d) of the electricity facilities, only about 40 per cent of the total need for electricity can be provided;

(e) about 30 per cent of the harbor tugboats are in a dilapidated condition;

(f) about 30 per cent of the loading and unloading equipment is obsolete/sub-standard.

The dredging of harbors has also been neglected because of a shortage in dredging boats and even those available cannot operate at full capacity. Of the 24 dredging boats available, 15 per cent are no longer fit for operation, 25 per cent need serious repairs (some of them are more than 40 years old) and the remaining 60 per cent are always late in docking/repair because of shortages of spare parts, equipment and docking space. 50 per cent of their auxiliary equipment is obsolete.

A result of this is that of the 16 million cubic metres of mud involved annually in the dredging of the shipping channels and river beds, only 11 million cubic metres can be dredged. Each year there is a residue of 5 million cubic metres of undredged silt. This is an impediment to shipping.

The conditions of the shipping safety facilities have also declined. Of the various kinds of safety equipment, only 30 per cent could be equipped with lights. Only 45 per cent of all tools and equipment functions normally.

The shipping telecommunication network features 35 coastal radio stations and 46 fixed radio stations throughout the Indonesian archipelago. Out of this total 60 per cent are no longer fit for operation and are more than 15 years old.

The condition of the docking and repair facilities for ships is no different from that of other facilities. Docking facilities capable of serving the domestic fleet are to be found in Surabaja and Tandjung Priok (Djakarta). As a result of shortages in spare parts and equipment, the annual repair of ships has been neglected. Ship repairs made outside the country have foreign exchange difficulties.

The poor condition of the harbors and other infrastructure causes a slow turn-around time for ships and low productivity of the fleet.

2. Policies and Measures

Harbors and harbor facilities represent a sea transport infrastructure. Their improvement therefore is a prerequisite for effective and efficient sea transport. For this reason the measures to be taken are directed toward rehabilitation and expansion of docking space, rehabilitation of the harbors and harbor facilities, rehabilitation of dredging and auxiliary equipment, improvement in shipping safety facilities such as navigational aids which include telecommunications and replacement of obsolete equipment.

Because of the accumulated backlog, immediate dredging is necessary for the harbors of Surabaja, Bandjermasin, Belawan, Palembang, Pontianak and Djambi. Shipwrecks must also be salvaged immediately.

At Tandjung Priok harbor, a study will be made of the possibility of expanding the harbor with an industrial area equipped with a container harbor. Further action will depend on the findings of surveys and feasibility studies as well as the availability of funds.

To raise the efficiency level of the harbor function, policy actions are to be taken to improve the port administration and port handling operations. These will be in line with the following principles:

(a) All ports and their associated areas throughout the archipelago -- with the exception of ports used exclusively by the Armed Forces -- are administered by and placed under the authority of a single agency in accordance with the principle of single management.

(b) As a terminal, the port must represent an economic unit where activities, coordination, policies and their follow-up measures must be carried out with maximum efficiency. To achieve this, institutional improvements affecting organization and operation should be carried out. These reforms are to be guided by the following:

(I) Ports represent working units where the power of execution and authority are held by a Port Administrator. In carrying out his tasks the Port Administrator is assisted by a Port Consultative Board.

(II) The Port Administrator's tasks concern matters of port administration and port handling. He is responsible for the supervision and coordination of measures to ensure the smooth flow of goods, documents, and other cargoes, and the availability and smooth operation of the port facilities.

(III) The Port Administrator carries out his tasks on the basis of government policies and directives from the Port Consultative Board.

(IV) The membership of the Port Consultative Board is open to representatives of government agencies at the level of Departments operating within the port areas and private organizations concerned.

(V) The Port Administrator is responsible for the supervision and coordination of all government agencies and both the state-owned and private units operating within the port areas.

(c) Autonomous ports may be set up if they are considered necessary and if the criteria of self-support as to investment and operations are met.

With the policies and measures stated above, it is hoped that the following conditions will prevail by the end of the development plan:

(1) Improvement in the turn-around time of ships;
(2) Safe sea transport;
(3) Elimination of congestion threats in the ports;
(4) Reduction of idle port time.

3. Development Targets and Locations

3.1 Port Facilities

The dredging of accumulated mud will be completed within the next five years. Salvage operations are being planned involving the lifting of 173,305 G/T of shipwrecks. The total number of shipwrecks is 281 with an estimated combined tonnage of 247,578 G/T. As to port facilities, the plans include the rehabilitation of piers involving a total length of 16,833 metres and extension of existing piers with a total additional length of 840 metres; storage buildings to be rehabilitated involving 425,990 M^2 and new construction involving an additional 21,300 M^2; rehabilitation of fresh water facilities involving 35,830 ton/day and construction of new facilities with a total capacity of 53,660 ton/day; rehabilitation of facilities for electricity involving 2,560 KVA; the rehabilitation of loading and unloading equipment with a combined weight of 750 tons and procurement of new equipment of various types in keeping with their place of operation with a total weight of 430 tons.

The development plans concerning the dredges and dredging equipment include the rehabilitation, replacement and procurement of additional dredges of various types and sizes such as scooping dredges, disk dredges and mud suction dredges, in addition to other equipment such as mud buckets, barges, tugboats, etc. The fleet of dredges will be expanded with 2 scooping dredges, 2 disk dredges, 28 mud buckets, 4 house-boats, 4 oil buckets, 22 barges, sea pontoon pipes with a total length of 7,000 metres, land pontoon pipes with a total length of 10,000 metres, 10 buses, 2 quays and workshop equipment.

The rehabilitation/extension or expansion of piers, storage space, fresh water and electricity facilities, and loading and unloading equipment, the dredging of accumulated mud, the salvage of wrecked ships, and the rehabilitation of existing as well as the procurement of new dredges and dredging equipment are to be carried out in the years and places as shown in Table VII-C-2.

The actual work will be preceded by a feasibility study so as to ensure an efficient use of funds and manpower.

3.2 Navigation Safety Facilities

Regarding navigation safety, the Five-Year Plan provides for the rehabilitation, replacement and extension of shipping telecommunication facilities, anchorage facilities, and coastal lighting, and facilities for navigation safety control. Efforts will be made to establish 6 coastal radio stations and 20 fixed radio stations, as well as to procure additional equipment.

Development projects concerned with anchorage and coastal lighting include, among others, the setting up of shore facilities, the rehabilitation and procurement of an additional number of ships for anchorage and coastal lighting, the provision and storage of equipment, introduction and expansion of the propane gas lighting system, electrification, the building of light-houses and the placement of light buoys.

Regarding development activities in navigation safety control, efforts will be made to obtain an additional 15 ship measurers, 50 ship safety controllers, 10 ship registration experts, 60 sea and port pilots, and 26 pilot boats. Follow-up action on this plan will be preceded by a feasibility study to ensure efficient use of funds and manpower.

3.3 Docking and Ship Repair Facilities

In addition to the rehabilitation of existing facilities for docking & ship repairs and the supply of spare parts & equipment, efforts will also be undertaken to expand docking space by the constructing of ship repair units of 5,000 TLC (total lifting capacity) in Belawan and units of 800 TLC in Pontianak. Details of this plan are shown in Table VIII-C-2.

It is planned to set up bonded warehouses to stimulate economic activity. It is hoped that this will shorten the time spent completing import procedures. With the establishment of bonded warehouses, only a relatively small capital for the stock-piling of materials/spare parts would be needed.

3.4 Supplementary Infrastructure

This infrastructure includes surveys research and planning activities to evaluate and improve the sea communication policies, foreign technical assistance, training and research and rehabilitation of government apparatus. The development of this infrastructure cannot be separated from that of the other fields. The development of the latter cannot be carried out successfully if the problems of the supplementary infrastructure are neglected. The survey, research and planning to evaluate and improve the sea communication policies include monitoring, collecting, compiling, processing and analysing data on all sea communication activities. The findings of these activities are useful for designing measures for improvement. Continuous and regular surveys and research activities will make possible effective and efficient policy formulations, e.g. in directing, administering and planning operations, such as the setting of standards of efficiency, productivity and effectiveness, as well as other operational standards which are of vital importance to both sea communication operations and science in general.

Technical cooperation with foreign countries will be directed towards achieving maximum benefit from foreign technical aid and utilizing it for either physical or non-physical development needs. Regarding the need for training, development efforts will include the expansion of auxiliary facilities such as study and library reference materials, study equipment, laboratory equipment, workshops, buildings and other facilities, the provision of teachers/instructors for Maritime Academy in Djakarta, the Maritime Refreshing and Extension Course in Djakarta, upgrading courses in Djakarta, the maritime high schools in Semarang and Makasar, the basic maritime schools in Surabaja, Makasar and Belawan; and the conducting of state examinations at privately run schools.

Table

DEVELOPMENT OF PORTS

1969/1970 -

Projected Activities		Ports/
(1)	(2) 1969/70	(3) 1970/71
1. Rehabilitation/expansion of terminal facilities (quays/ storage buildings/ fresh water and electricity plants/ loading and unloading equipment/water breakers/coastal harbors/roads and fences at ports. *)	In several places, among others outside Java: Belawan, Makasar, Pandjang, Ambon, Benoa, Bitung, Donggala, Ternate, Teluk Bajur, Tenau, Samarinda, Bandjarmasin, Pontianak, Meulaboh, Ulee Lheue, Dumai, Pakan Baru, Kendari, Sampit, Muara Sabah, Sibolga, Bengkulu, etc.	Covering several places, among others outside Java: Belawan, Palembang, Pandjang, Tenau, Ambon, Ternate, Selat Pandjang, Rengat, Bima, Tembilahan, Bengkulu, Makasar, Pakan Baru, Muara Sabah, Sibolga, Bandjarmasin, Bitung, etc.
2. Salvage of shipwrecks.	In harbors of Djakarta, Surabaja, Tjilatjap, Palembang and in the Bangka Strait.	In harbors of Djakarta, Surabaja, Belawan.
3. Dredging of accumulated mud.	Throughout Indonesia, among others in the following locations outside Java: Musi River, Djambi, Bandjarmasin, Belawan.	Same as in 1969.
4. Rehabilitation/ building of additional docking and repair plants.	Dock yards of Djakarta, Surabaja.	Palembang, Semarang, Djakarta.
5. Rehabilitation/replacement/extension of shipping telecommunication facilities:		

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*) Not every port requires an overall rehabilitation/expansion of facilities.

AND OTHER INFRASTRUCTURE
1973/1974

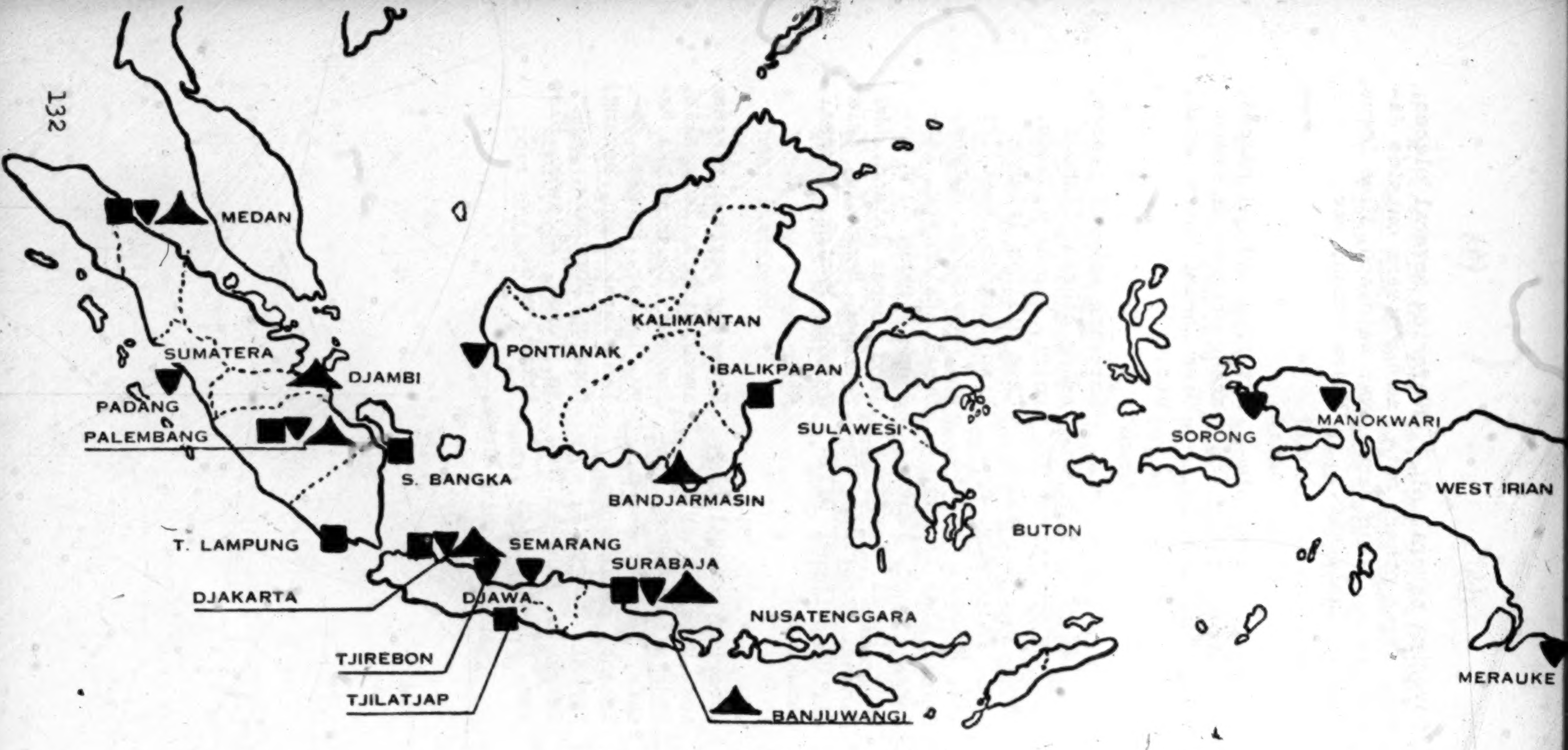
Locations of Ports

(4) 1971/72	(5) 1972/73	(6) 1973/74
Covering several places, among others outside Java: Manado, Bandjarmasin, Makasar, Djambi, Balikpapan, Teluk Bajur, Dumai, Ambon, Pakan Baru, Sampit, Bengkalis, Bitung, Lembar, Belawan, Bengkulu, Muara Sabah, Sibolga, Pandjang, Bandjarmasin, etc.	Covering several places, among others outside Java: Ambon, Dumai, Kupang, Sibolga, Belawan, Manado, Ulee Lheue, Tembilahan, Pontianak, Gorontalo, Djambi, Bengkulu, West Irian, Palembang, Makasar, Bandjarmasin, Boa, Pontianak, Pandjang, etc.	Covering several places, among others outside Java: Donggala, Benoa, Belawan, Makasar, Palembang, Pandjang, Balikpapan, Lembar, Bima, Rengat, Dumai, West Irian, Pontianak, Sabang, Bitung, Boa, etc.
In harbors of Djakarta, Surabaja and in the Lampung Bay.	In harbors of Djakarta, Surabaja, Balikpapan.	In harbors of Djakarta, Surabaja, Balikpapan.
Same as in 1969.	Same as in 1969.	Same as in 1969.
Tjirebon, Padang.	Belawan, Pontianak.	Belawan, Pontianak.

For example, some ports may need a new quay only, others may need a quay, fresh water facilities, etc.

(1)	(2)	(3)
a. Transmitting and receiving stations.	Covering several places, among others outside Java: Ambon, Makasar, Palembang, Pontianak, Belawan, West Irian, Sampit, etc.	Covering several places, among others outside Java: Dumai, Bitung, etc.
b. Wireless operators' quarters.	Among others outside Java: Ambon, Makasar, Palembang, Pontianak, Belawan, West Irian, Sampit, etc.	Covering several places, among others outside Java: Dumai, Bitung, etc.
6. Rehabilitation/replacement/expansion of facilities for anchorage and coastal lighting (light houses, quay pillars, buoys, workshops for coastal lighting facilities, quays), guards' quarters, lighthouse lamps, sailors' quarters, pilot boat stations.	Covering several places, among others: Manado, Talise, Serutu Island, Langkuas, Gorontalo, Palembang, Bandjarmasin, Nipah, Rob Roy Bank, Dumai, Tandjung Pinang, Samarinda, Ambon, Makasar, Pontianak, Ampenan, West Irian, etc.	Covering several places, among others: Klah Islands, Tempurung, Mandalika, Tjimiring, Sabang, Makasar, Samarinda, Dumai, Tandjung Pinang, Kupang, Manado, Belawan, Padang, Bandjarmasin.
7. Working unit buildings (office buildings, seamen's health centers, housing facilities for port administrator/staff employees) and transport units.	Covering several places, among others: Gunung Sitoli, Kuala Tungkal, Pontianak, Singkawang, Tjirebon, Ambon, Djakarta, Surabaja, Semarang, Samarinda, Bandjarmasin, West Irian, Makasar, Kupang, etc.	Covering several places, among others: Waingapu, Bagan Siapiapi, Kupang, Endeh, Djakarta, Surabaja, Semarang, Bandjarmasin, Sabang, Palembang, Ambon, Makasar, etc.

(4)	(5)	(6)
Covering several places, among others outside Java: Sabang, Bandjarmasin, etc.	Covering several places, among others outside Java: Pakan Baru, Kupang, Tual, etc.	Covering several places, among others outside Java: Waingapu, Ulee Lheue, Muara Sabah, etc.
Covering several places, among others: Sabang, etc.	Covering several places, among others: Sabang, Bandjarmasin, etc.	Covering several places, among others: Waingapu, Ulee Lheue, Muara Sabah, etc.
Covering several places, among others: Ambon, Suwangei, Suba-suba, Tandjung Djang, Djambi, Pandjang, Samarinda, Dumai, Tandjung Pinang, Kupang, Bandjarmasin, Rengat, Tembilahan, etc.	Covering several places, among others: Matang Island, Kares Island, Tandjung Kalinget, Palembang, Muntok, Kupang, Pangkal Balam, Klah Island, Beras Island, Palembang, Dumai, Tandjung Pinang, Samarinda, Tual, Ulee Lheue, Gilimanuk, etc.	Covering several places, among others: Diamond Point, Sapudi Islands, Cape William Islands, Riau Islands, West Irian, Samarinda, Sorong, Dumai, Palembang, Tandjung Pinang, Klah Island, Beras Island, Lho Seumawe, Bengkulu, Balam Island, Muntok, Bangsal, etc.
Covering several places, among others: Ampenan, Dumai, Muntok, Tembilahan, Balikpapan, Samarinda, Kupang, Sabang, Donggala, West Irian, Ambon, Makasar, etc.	Covering several places, among others: Bengkalis, Ambon, Ternate, Rengat, Benoa, Sabang, Balikpapan, Kupang, Donggala, Bengkulu, Pangkal Balam, Djambi, etc.	Covering several places, among others: Bengkalis, Sumbawa, Oa Palangka Raya, Lembar, Pangkal Balam, Tapak Tuan, Sabang, Kupang, Donggala, Langsa, Dumai, Belawan, Ulee Lheue, etc.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MANOKWARI
WEST IRIAN
MERAUKE
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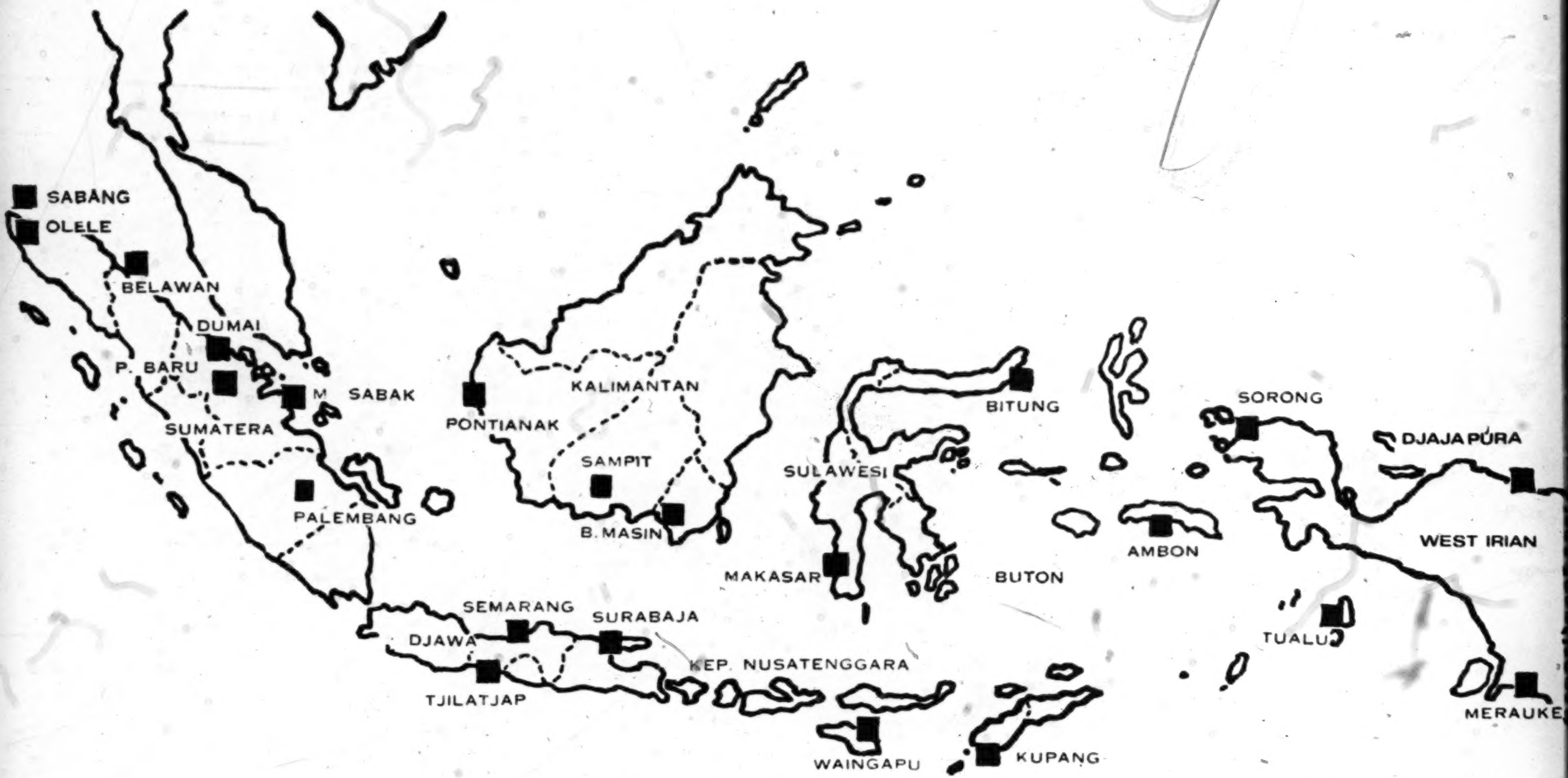
▼ REHAB/INCREASE OF FACILITIES
■ SALVAGE OF WRECKS

SUB SECTOR : COMMUNICATIONS

SEA COMMUNICATIONS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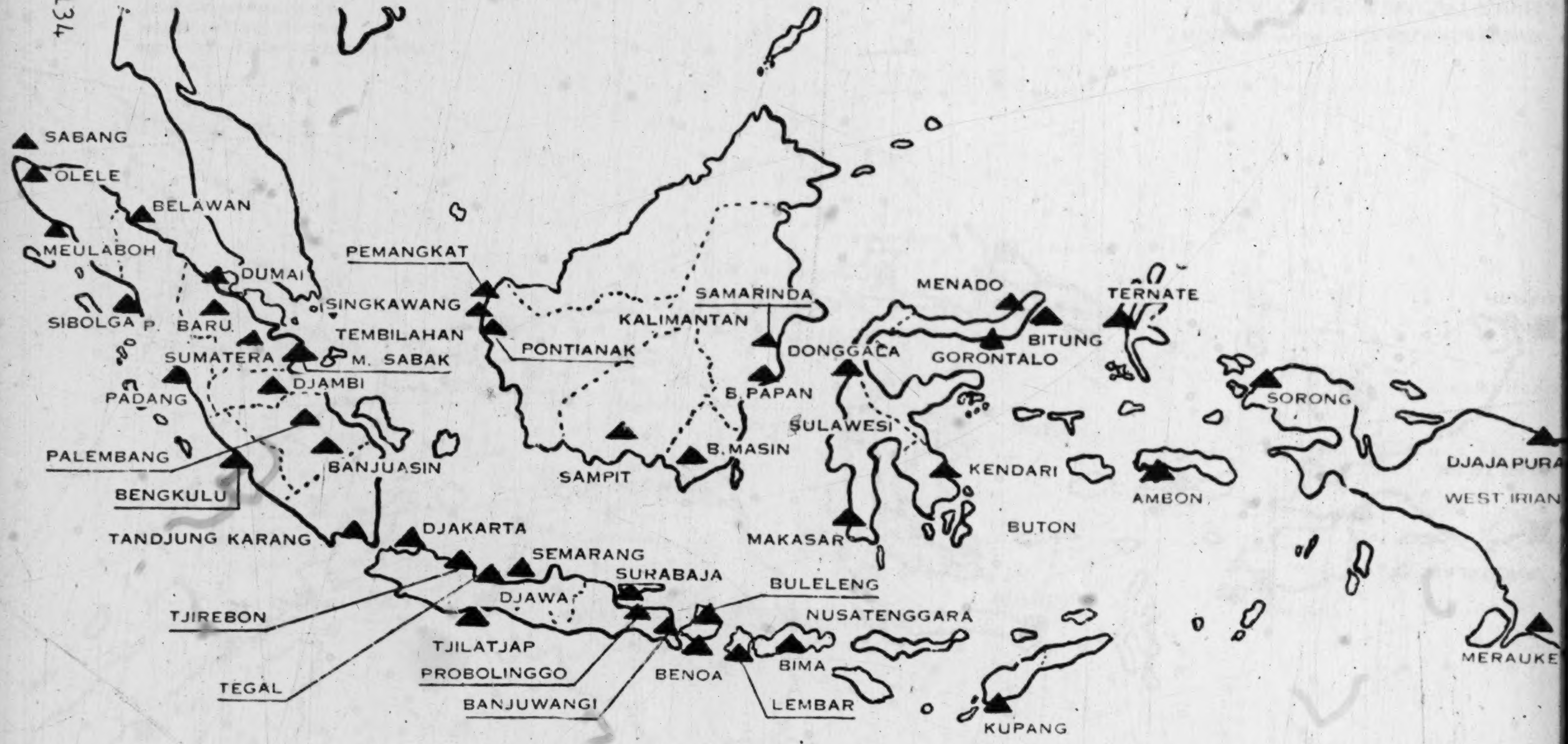
SUB SECTOR : COMMUNICATIONS
SEA COMMUNICATIONS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BANJUWANGI
PONTIANAK
KALIMANTAN
SAMARINDA
B. PAPAN
SAMPIT
B. MASIN
DONGGALA
SULAWESI
MAKASAR
BULELENG
NUSATENGGARA
BENOA
BIMA
LEMBAR
MENADO
BITUNG
GORONTALO
KENDARI
BUTON
TERNATE
SORONG
AMBON
KUPANG
DJAJAPURA
WEST IRIAN
MERAUKE

▲ REHABILITATION/INCREASE OF TERMINAL, QUAY, GODOWN FACILITIES, ELECTRIC, WATER? LOADING & UNLOADING FACILITIES

SUB SECTOR : COMMUNICATIONS

SEA COMMUNICATIONS

VI. AIR COMMUNICATIONS

1. Airports and Other Facilities

1.1 Situation and Problems

1.1.1 Airstrips

Nearly all airstrips -- since the time they were constructed -- have undergone only minor changes. Such changes as have been made have been limited to the extension of airstrips, and generally speaking no improvements have been made in their bearing capacity.

With the advancement and development of air transportation, bigger and faster aircraft are being put into operation. The present condition and capacity of the airstrips are no longer appropriate for this progress and growth.

The number of airports used for civil air transport is 38. Because of the strength and length of their strips, however, only certain types of aircraft can land on them. Bigger aircraft may land but only with restricted loads.

1.1.2 Airport facilities

The basic airport facilities include :

(a) Aviation telecommunication and navigational aids
(b) Electric power plant
(c) Runway lighting, approach lighting, etc.
(d) Aviation meteorology
(e) Terminal buildings, buildings for ground facilities, water installation, operational and housing facilities.

a. Aviation telecommunication and navigational aids

In spite of efforts to modernise and replace the telecommunication equipment last year, at present not all telecommunication facilities meet the minimum requirements. This is due to the rapid development of air transport in terms of size and speed of the aircraft, as well as in traffic density.

Communication between ground stations is slow since either the system is out of date or the equipment is out of order because of obsolescence.

Communication between ground stations and aircraft is frequently interrupted or unable to reach far enough. This reduces flight safety as there is no guarantee of air traffic control and observance of air traffic regulations. Without dependable navigational aids, it would be hard to attain the projected goals or maintain safety requirements.

Because of the above, the benefits of navigational aids such as VOR/DME RADAR and NDB should be studied.

b. Electric power plants

The electricity requirements of some airports still cannot be met by the state-owned electric company, PLN. In some cases this is because of the location of the airport. Airports should therefore provide their own electric power plants.

The plant constitutes a reserve source to ensure continuous electricity if the PLN supply fails, or a permanent plant in cases where the PLN is unable to supply it.

c. Runway lighting

At present, night landings can only be made at the airports of Medan, Djakarta, Surabaja, Denpasar, Makasar, Manado and Biak.

To make night landings possible, quite a number of other airports should be provided with runway lighting.

d. Aviation meteorology

Because of inadequate operational facilities, including buildings and vehicles for operational use and wireless communication with other places, most aviation meteorological stations at present conduct their observations and transmit their findings to data collecting centers in the day-time only. A continuous 24-hour operation is actually required.

e. Terminal buildings, buildings for ground facilities, fresh water installation, housing and transportation for operational purposes

Terminal buildings, or extensions to existing terminal buildings, are necessary at quite a few airports to keep pace with the increasing volume of passengers and goods and to speed up ground handling. Buildings for operational purposes such as the tower, electric power plant, and operations centers have to be constructed at most airports to enable the newly installed equipment to be used efficiently.

In general, airports are located far from cities so that it is not feasible to connect them with the city water system. This makes it urgent for many airports to provide their own fresh water installation.

1.1.3 Other Facilities

a. Agriculture and Maritime Meteorology

To ensure a successful completion of the Five-Year Development Plan which is primarily designed to increase food production, studies of the impact of weather conditions on agriculture have to be intensified. This necessitates improving the agriculture meteorological stations. In addition, meteorological observations at sea must also be carried out by commercial vessels, coordinated by the maritime meteorological stations. The meteorological data are of vital importance for efforts to increase food production and also for the safety of shipping.

b. Geophysics

The geophysical stations must be improved to make possible the collection of seismological data and data about the earth's magnetic field and gravitation for industrial development purposes. Communication between the stations and the operations center should be developed to enable swift transmission of reports on earthquakes.

c. Aviation health facilities

In addition to other facilities, the human factor plays an important role in aviation safety. Available statistical data show that more than 70 per cent of aeroplane accidents are caused by human factors. To ensure safety during flight operations, the aircraft crew and certain ground operation officers have to undergo periodic medical check-ups in compliance with established requirements.

d. Training

Personnel for servicing and maintaining the facilities are recruited from the training courses conducted by the Air Communications Training Institute.

e. Search and Rescue

Indonesia is not yet in a position to operate a search and rescue service. It should be able to as part of its aviation obligations and for humanitarian reasons. Steps to improve the necessary equipment so as to increase the confidence of international aviation in Indonesia's ability to meet its obligations are being considered.

1.2 Policies and Measures

Following are the actions which are to be undertaken in stages:

(a) improvement and upgrading of airports which are of importance to commercial traffic;

(b) improvement of physical facilities such as runways, terminals, aviation telecommunications, airport lighting, landing navigational aids, meteorology, etc.

These actions are to be preceded by surveys and careful studies to ensure an efficient use of funds and manpower.

Among the various airstrips, special attention is given to the proposed project to intensify the modernization of Kemayoran airport to enable it to handle air traffic more efficiently, faster, more safely, and more regularly. This is to be preceded by a feasibility study and cost-benefit-ratio assessment of the project's effectiveness.

With these policy actions it is hoped that a higher standard of safe and orderly aviation can be established within the next five years.

1.3 Development Targets and Locations

1.3.1 Airports

The desired objective is the rehabilitation and the expansion of airport capacity so as to increase the flight hours of the aircraft on an average 30 to 50 per cent. The time schedule and targets are shown in Table VIII-D-1.

Of the 32 airports, which are to be improved, fourteen will be rehabilitated (the airports of Kidjang, Dobo, Bulutumbang, Pangkalpinang, Tarakan, Sumbawabesar, Waingapu, Maumere, Palu, Gorontalo, Djailolo, Rengat, Tandjungkarang and Bengkulu). The remaining eighteen are to be upgraded so that three (Polonia, Tuban, Hasanudin) will be able to ac-

Airport	Runway	Telecommunication and Navigational Aid	Electric Power Plants	Runway Lighting	Aviation Meteorology	Fire Engine	Buildings for Operational Purposes and Water Installation	Transport facilities for operational purposes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Blangbintang, Banda Atjeh.	Upgrading to reach bearing capacity of 41,000 lbs.; extension of apron	Rehabilitation, upgrading and new installations	Replacement with new generator (min. power requirement of 75 KVA to increase capacity).	Installation of airport lighting.	Rehabilitation and - transport for the supply and installation of meteorological equipment.	Replacement with engines able to cope with operational demands.	Construction of buildings and housing facilities for operational purposes, extension of the terminal building including parking space.	Replacements and e tensions of facilities.
2. Polonia, Medan.	Upgrading and extension to reach bearing capacity of 300,000 lbs.; extension of apron.	Same as above.	Increase of capacity by replacement with new generator (min. power requirement of 175 KVA).	Improvement of the airport lighting system.	Same as above.	Same as above.	Construction of buildings and housing facilities for operational purposes, terminal building.	Same as above.
3. Simpang Tiga, Pakan Baru.	Upgrading and extension to reach bearing capacity of 41,000 lbs.; extension of apron.	Same as above.	Same as above (min. power requirement of 75 KVA).	Installation of airport lighting.	Same as above.	Same as above.	Extension of buildinge for operational purposes, the station and VOR telecommunication building, parking area, etc.	Same as above.

Note: Regarding the upgrading of airports about 60 - 75% of the targets will be completed within the first five years of development.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. Paalmerah, Djambi.	Same as above.	Same as above.	Same as above, (min. requirement of 50 KVA).	Same as above.	Same as above.	Same as above.	Construction of buildings for operational purposes, a station and telecommunication building.	Same as above.
5. Tabing, Padang.	Same as above.	Same as above.	Same as above, (min. requirement of 75 KVA)	Same as above.	Same as above.	Same as above.	Extension of station building, housing facilities for operational purposes.	Same as above.
6. Djapura, Rengat.	Rehabilitation.	Rehabilitation, upgrading and new installation.	Increase of capacity by replacement with new generator (min. requirement of 175 KVA).	Installation of airport lighting.	Rehabilitation and transport for the supply and installation of meteorological equipment.	Replacement with fire engines able to cope with operational demands.	Extension of station building, housing facilities for operational purposes.	Replacement and extension of facilities.
7. Padangkemiling, Bengkulu.	Rehabilitation.	Same as above.	Same as above, min. requirement of 50 KVA).	Same as above.	Same as above.	Same as above.	Same as above.	Same as above.
8. Branti, Tg. Karang.	Rehabilitation.	Rehabilitation, upgrading and new installation.	Increase of capacity by replacement with new generator (min. requirement of 50 KVA).	Same as above.	Same as above.	Same as above.	Construction of terminal building, and buildings and housing facilities for operational purposes.	Replacement and extension of facilities.
9. Talang Betutu, Palembang.	Upgrading and extension to reach bearing capacity of 116,000 lbs.; improvement and extension of apron.	Same as above.	Same as above, (min. requirement of 175 KVA).	Same as above.	Same as above.	Same as above.	Extension of terminal building, construction of buildings and housing facilities for operational purposes.	Same as above.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. Sungai Durian, Pontianak.	Same as above; bearing capacity up to 41,000 lbs.	Same as above.	Same as above.	---	Same as above.	Same as above.	Rehabilitation of terminal building, and buildings and housing facilities for operational purposes.	Same as above.
11. Palangkaraya	Upgrading to reach bearing capacity of 25,000 lbs.	New installation.	New installation (min. requirement of 50 KVA).	—	Setting up of a meteorological station.	Formation of fire brigade.	Same as above.	Same as above.
12. Ulin, Bandjarmasin.	Upgrading and extension to reach bearing capacity of 116,000 lbs.; improvement and extension of apron.	Same as above.	Same as above, (min. requirement of 125 KVA).	Installation of airport lighting.	Rehabilitation, upgrading, supply and installation of meteorological equipment.	Replacement with fire engines able to cope with operational demands.	Extension of station building, construction of buildings and housing facilities for operational purposes.	Same as above.
13. Sepinggan, Balikpapan.	Upgrading and extension to reach bearing capacity of 41,000 lbs.; construction of apron.	Rehabilitation upgrading and new installation.	Increase of capacity by replacement with new generator (min. requirement 100 KVA).	Installation of airport lighting.	Rehabilitation and upgrading, supply and installation of meteorological equipment.	Replacement with fire engines able to cope with operational demands.	Construction of terminal building, parking area, buildings and housing facilities for operational purposes.	Replacement and extension of facilities.
14. Adisutjipto, Jogjakarta.	Same as above.	New installation.	Same as above; (min.requirement of 75 KVA).	Same as above.	—	—	Extension of terminal building, and buildings and housing facilities for operational purposes.	Same as above.
15. Tuban, Denpasar.	Same as above; 300,000 lbs.	Same as above.	Same as above; (min. requirement of 375 KVA).	—	Same as above.	Same as above.	Construction of terminal building, housing facilities for operational purposes.	Same as above.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16. Rembiga, Ampenan.	Same as above; 41,000 lbs.	Same as above.	Same as above; (min. requirement of 50 KVA).	Same as above.	Same as above.	—	Extension of terminal building, construction of buildings and housing facilities for operational purposes.	Same as above.
17. Penfui, Kupang.	Same as above; 41,000 lbs.; construction of apron.	Same as above.	Same as above; (min. requirement of 75 KVA).	Same as above.	Same as above.	Same as above.	Same as above.	Same as above.
18. Hasanuddin, Makasar.	Same as above.	Rehabilitation, upgrading and new installation.	Same as above; (min. requirement of 200 KVA).	Same as above.	Same as above.	Same as above.	Construction of terminal building, buildings and housing facilties for operational purposes and parking area.	Same as above.
19. Mapanget, Manado.	Same as above; 116,000 lbs.; extension of apron.	Same as above.	Same as above; (min. requirement of 125 KVA).	Same as above.	Same as above.	Same as above.	Same as above.	Same as above.
20. Pattimura, Ambon.	Upgrading and extension to reach bearing capacity of 116,000 lbs.; extension of apron.	Rehabilitation, upgrading and new installation.	Increase of capacity by replacement with new generator (min. requirement of 125 KVA).	Installation of airport lighting.	Rehabilitation and upgrading by supply and installation of meteorological equipment.	Procurement of fire engines able to cope with operational demands.	Construction of terminal building, buildings and housing facilities for operational purposes, and parking area.	Extension and replacement of facilities.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21. Kemayoran, Djakarta.	Upgrading, new construction and extension of 08-26 (400,000 lbs.); 17-35 (285,000 lbs.) widening of entrance apron.	Same as above.	Same as above; (min. requirement of 1,500 KVA).	Same as above.	Same as above.	Same as above.	Setting up of new complex which is to be completed with a terminal building, parking area, catering facilities.	Same as above.
22. Kidjang, Tg. Pinang.	Rehabilitation.	Same as above.	Same as above; (min. requirement of 50 KVA).	—	Same as above.	—	—	Same as above.
23. Dabo, Singkep.	Rehabilitation.	Same as above.	Same as above; (min. requirement of 50 KVA).	—	Same as above.	—	—	Same as above.
24. Bulutumbang, Tg. Pandan.	Rehabilitation.	Same as above.	Same as above; (min. requirement of 50 KVA).	—	Same as above.	—	Rehabilitation of terminal building, and buildings and housing facilities for operational purposes.	Same as above.
25. Pangkal Pinang, Pangkal Pinang.	Rehabilitation.	Same as above.	Same as above; (min. requirement of 75 KVA).	—	Same as above.	Same as above.	Same as above.	Same as above.
26. Tarakan, Tarakan.	Rehabilitation.	New installation.	Increase of capacity by replacement with new generator (min. requirement of 75 KVA).	—	Rehabilitation and upgrading by supply and installation of meteorological equipment.	—	Building for operational purposes.	Extension and replacement of facilities.
27. Sumbawabesar	Rehabilitation.	New installation.	Same as above; (min. requirement of 75 KVA).	Same as above.	Same as above.	—	Construction of terminal building, and buildings and housing facilities for operational purposes.	Same as above.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
28. Waingapu	Rehabilitation.	Same as above.	Same as above; (min. requirement of 75 KVA).	Same as above.	Same as above.	—	Same as above.	Same as abov
29. Maumere	Rehabilitation.	Same as above.	Same as above; (min. requirement of 75 KVA).	Same as above.	Same as above.	—	Same as above.	Same as abov
30. Palu	Rehabilitation.	Rehabilitation, upgrading and new installation.	Same as above; (min. requirement of 75 KVA).	—	Same as above.	—	Same as above.	Same as abov
31. Gorontalo	Rehabilitation.	Same as above.	Same as above; (min. requirement of 75 KVA).	—	Same as above.	—	Same as above.	Same as abov
32. Djailolo	Rehabilitation.	Same as above.	Same as above; (min. requirement of 50 KVA).	—	Same as above.	—	Building for operational purposes.	Same as abov

commodate Douglas DC-8 turbojets with a maximum take-off weight (m.t.o.) of 142,880 kilograms: two (Talangbetutu, Ulin) will be able to accommodate Douglas DC-9 turbojets with an m.t.o. of 35,200 kilograms: eleven of them (Blangbintang, Simpang Tiga, Paalmerah, Tabing, Sungai Durian, Adisutjipto, Sepinggan, Rembiga, Panfui, Mapanget, Pattimura) will be able to accommodate Fokker/Fairchild F-27 turboprops with an m.t.o. of 16,194 kilograms: one of them (Palangka Raya) will be able to accommodate piston Douglas DC-3/Dakotas with an m.t.o. of 11,431 kilograms. The improvements of Kemayoran airport will include the upgrading of two runways (08-26 and 17-36) so that they will be able to accommodate DC-8 jets with unrestricted capacity as well as handle the air traffic demands of the next ten years.

1.3.2 Training:

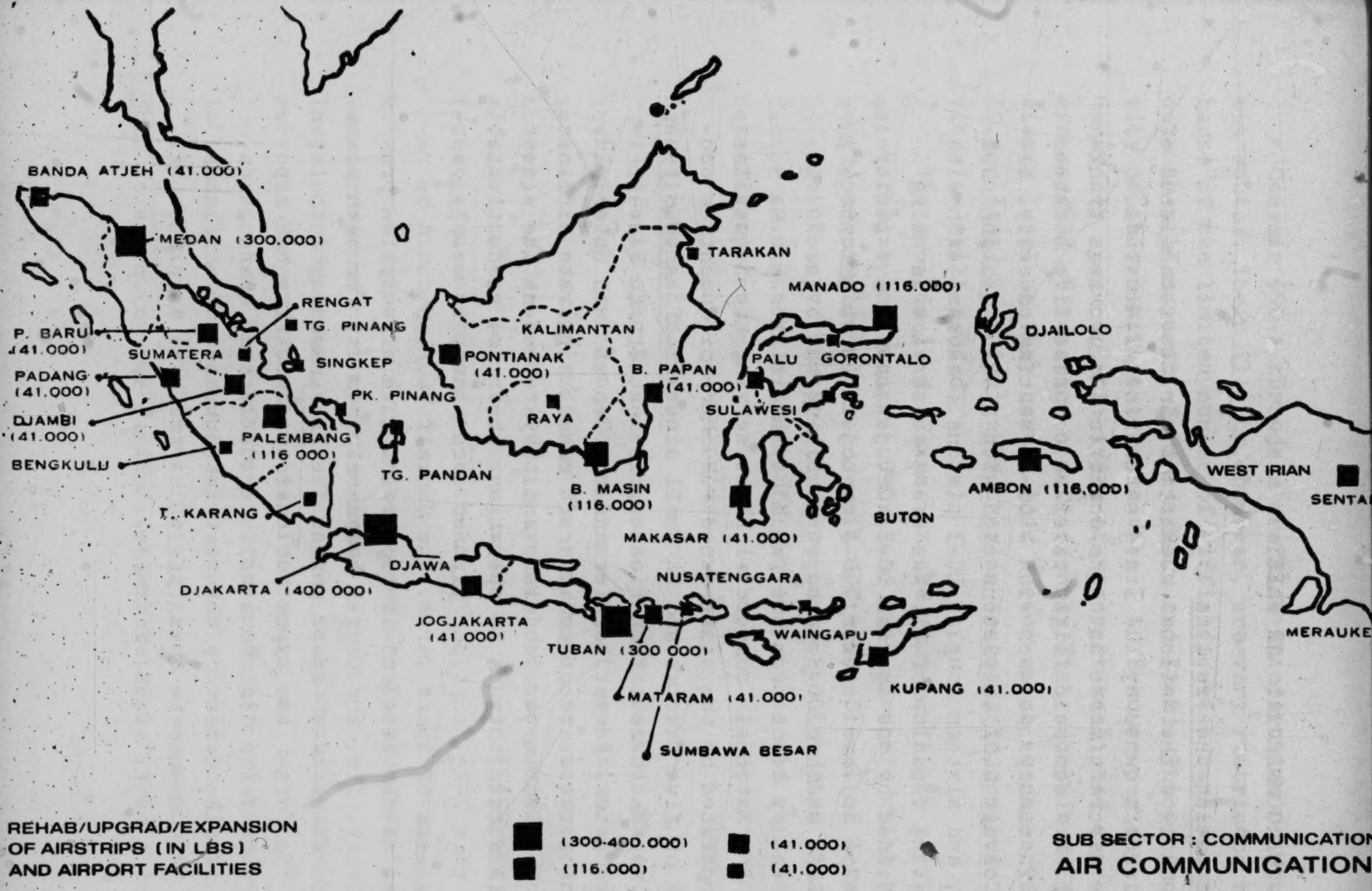
(a) rehabilitation of aviation facilities;
(b) replacement of training equipment and training aids;
(c) extension of buildings for operational purposes; and
(d) replacement/expansion of transportation facilities for operational purposes.

1.3.3 Agricultural meteorology :

(a) provision of equipment for 3 major agricultural stations and 9 ordinary agricultural stations;
(b) provision of equipment for 300 hydrometeorological stations.

1.3.4 Geophysics: provision of equipment for the geophysical stations in Djakarta and Tanggerang.

SUB SECTOR : COMMUNICATION
AIR COMMUNICATION


BANDA ATJEH (41.000)
MEDAN (300.000)
RENGAT
TG. PINANG
P. BARU (41.000)
SUMATERA
SINGKEP
PADANG (41.000)
DJAMBI (41.000)
PK. PINANG
PALEMBANG (116 000)
BENGKULU
TG. PANDAN
T. KARANG
DJAKARTA (400 000)
DJAWA
JOGJAKARTA (41 000)
KALIMANTAN
PONTIANAK (41.000)
RAYA
B. MASIN (116.000)
B. PAPAN (41.000)
TARAKAN
TUBAN (300 000)
MATARAM (41.000)
SUMBAWA BESAR
NUSATENGGARA
WAINGAPU
KUPANG (41.000)
MAKASAR (41.000)
SULAWESI
PALU
GORONTALO
MANADO (116.000)
BUTON
DJAILOLO
AMBON (116.000)
WEST IRIAN
SENTA
MERAUKE
(300-400.000)
(116.000)
(41.000)
(41.000)

REHAB/UPGRAD/EXPANSION
OF AIRSTRIPS (IN LBS)
AND AIRPORT FACILITIES

VII. THE COMMERCIAL AIR FLEET

1. Situation and Problems

In 1968 the National commercial air fleet consisted of 32 aircraft owned by the state enterprise, P.N.Garuda. These aircraft serve both the domestic and overseas trunklines. The domestic flight carriers comprise five Lockheed Electra turboprops each with a 66-85 seating capacity, eleven Convair 440/340 pistons each with a 44-52 seating capacity, and sixteen Douglas DC-3 pistons (Dakotas) each with a seating capacity of 21. The overseas service is being maintained by one Douglas DC-8 turbojet (seating capacity 118-175) and two Convair 990-A turbojets (seating capacity 96-121). Another DC-8 turbojet is flying the overseas service on dry lease from the Dutch Royal Airlines K.L.M.

The National commercial fleet serving the feederlines and operated by the state-owned P.N. Merpati Nusantara consists of five Dakotas and 24 small aircraft of various types such as the 16-seat Turn Pioneer, 11-seat Otter, 7-seat Pilatus Potter, 5-seat Dornier and the 7-seat Twin Otter. In addition there are other aircraft owned by private airlines.

The Dakotas are obsolete and they represent the oldest of all aircraft types in operation. Their low productivity, less than 2-2½ hours per day for each plane, is mainly caused by lack of spare parts. The Convair 340/440 could be regarded as obsolete and it too yields a relatively low productivity, i.e. about 2½-3 hours only per day for each plane due to the lack of spare parts. The Electras came much later than the former two types but their productivity has also not reached the desired level. Beside lack of spare parts, this is also caused by the restricted number of airfields able to accommodate this type of aircraft -- only about 11 out of a total of 38 airfields.

Convair 990-A turbojets are also in operation on domestic routes. Their flights, however, are very restricted bebause of the limited number of airfields which can accommodate them (Kemayoran, Surabaja/Waru and Biak). The productivity of this aircraft type reaches 7 to 8 hours per day. Generally speaking, the types of aircraft mentioned above are capable of reaching a sufficiently high economic efficiency level as they have a load factor which averages 70 to 80 per cent. This indicates that an increase in domestic services is still needed.

The problem is different on the overseas flight services maintained by the Convair 990-A and DC-8 aircraft which have been operating at a low economic efficiency level of between 35 and 40% only. The problem here is how to increase the load factor so that the overseas flight operations can at least be self-supporting.

2. Policies and Measures

In view of the conditions and problems stated above, the policies for the commercial air fleet emphasize efforts to meet the domestic demand for air transport services and to raise the economic efficiency level of the aircraft, particularly those in overseas service. To attain this, the following measures are to be taken:

2.1 a. the domestic flight operations are to be classified as: semi-trunk, trunk and regional lines.
In principle, domestic air transport is operated by the Garuda and Merpati Nusantara airline companies.

b. to keep pace with the advancement of civil aviation, it is urgent to build up a more economic domestic fleet.

c. national private capital is given an opportunity to join in operating the feeder/semi-trunk lines.

d. foreign capital is given an opportunity to operate the semi-trunk and feeder lines in cooperation with national capital.

e. enterprises engaged in air-charter operations may operate throughout Indonesia on a charter basis.

2.2 International flight operations are classified as border operations, regional operations, and international operations. The border operations are designed to accommodate border traffic existing between Indonesia and neighbouring countries. Priority is also given to regional operations covering South-East Asia and Asia, which the national flag carrier Garuda has already been serving. On international flights, efforts will be made to increase their economic efficiency level and to gain a share of international traffic.

With these policies and measures it is expected that air transportation activities can be increased more effectively and more efficiently within the next five years.

3. Development Targets and Locations

a. to build up a more economically operating national air fleet, efforts will be made to replace the DC-3 aircraft serving domestic lines and to redirect their operations toward services involving poorly facilitated airfields.

b. to develop new routes supplying border traffic, i.e. between Pakanbaru-Singapore, Medan-Penang, Kupang-Darwin, Pontianak-Kuching, Tarakan-Tawao, Manado-Zamboanga/Davao.

c. to obtain traffic rights in several neighbouring countries with which Indonesia has no air agreement at present including Laos, Cambodia, South Vietnam, Taiwan and South Korea.

d. to improve Garuda's operations in Asian countries such as Japan, Hong Kong, the Philippines, Thailand, Malaysia and Singapore.

e. to improve Garuda's European operations.

VIII. POSTAL AND TELECOMMUNICATION.

1. Postal and Money Clearing Services

1.1 Situation and Problems

The function of the postal and money clearing services is to provide domestic and foreign postal communication facilities, to handle the traffic of dispatches through the domestic and foreign postal services, to handle transactions of money for government agencies and the general public as well, and other services, including a parcel post service.

At present postal services to the general public have not been as good as they should be because of the increase in public demand which has not been matched by an increase in equipment. The handling of postal communication depends heavily on transportation owned by third parties which have also been wrestling with difficulties.

In spite of this, efforts are being carried on to improve the service to the general public, by expanding the express mail service to major cities involving the use of fast trains, night buses, etc.; by improving postal safety, priority handling, and security arrangements for mailing bank documents at home and abroad; and by opening a postal money clearing and cheque service which makes possible the fast receipt of transfered money. The postal money clearing and cheque service represents a complementary component of the banking activities.

In keeping with the principles of cost accounting, measures for raising the standard of efficiency have been initiated in addition to efforts designed to increase earnings. Some of the latter activities include the opening of a bank express mail service, the issuance of express post cards, the levying of a delivery charge for parcels coming from abroad, the expansion of the express mail network and the conclusion of contract agreements with various government agencies in charge of collecting payments from the general public since they will be using the services of the postal money clearing and cheques.

1.2 Policies and Measures

To cope with the heavy postal traffic, improvements will be made in Djakarta's postal services within this Five-Year Development Plan to speed up mail delivery, to extend its services to the entire population which for the greater part is to be found in the interior rural areas and to improve and intensify control of the activities of the postal and money clearing services. Based on these considerations, the following objectives are projected under the first Five-Year Development Plan: to continue upgrading the postal services within the capital city, to expand the express mail network, to effectively promote Ambulatory Transit Post Services, to upgrade postal services in rural areas, to further expand and upgrade the Postal Money Clearing and Cheque Service and to improve controls and safety measures during the implementation of service orders.

With the policies and measures outlined above it is hoped that at the end of the Five-Year Development Plan more people will be able to enjoy a more efficiently and more effectively functioning postal money clearing service.

1.3 Development Targets and Locations

The following targets have been projected for the following locations:

1. Construction of five new post offices in the capital city - one each in Central Djakarta (Pasar Baru), Kebajoran Baru, Rawamangun, Pasar Kodja and Grogol.

2. Expansion of the express mail network to include 19 lines of communication, among them Djakarta - West Java - Central Java - East Java - Sumatra - Kalimantan - Sulawesi - Nusatenggara - Maluku - West Irian.
3. Setting up of 23 new express mail transportation routes between Djakarta and several remote cities, among others Banda Atjeh, Langsa, Tondano, Tomohon and Bitung.
4. Setting up of a mobile postal service which comprises:.
    a. a mobile postal service operating in 19 cities, among others Djakarta, Surabaja, Medan, Makasar, Pontianak, Denpasar, Manado, Jogjakarta and Ampenan.
    b. a railway postal service operating on the following routes : Djakarta - Semarang - Surabaja;
    Djakarta - Tjirebon - Semarang - Surabaja;
    Bandung - Jogjakarta - Surabaja;
    Merak - Djakarta; Kertapati - Pandjang; and Surabaja - Banjuwangi.
5. Setting up of a mail collecting network (as feeder lines) covering the stations of Tasikmalaja, Tjirebon, Semarang, Jogjakarta, Solo, Madiun, Djakarta, Serang, Palembang and Djember.
   The collecting is to be by motor vehicles.
6. Improvement of postal services in the rural areas and the interior. This includes:
    a. the upgrading of 360 postal stations into village post offices.
    b. the upgrading of permanent post offices in rural areas and the interior. The number of offices involved is: 179 in Java, 63 in Sumatra, 20 in Kalimantan, 16 in Sulawesi, 8 in Maluku, 22 in Nusatenggara and 19 in West Irian.
    c. the setting up of 25 mobile post offices, including 9 in Central Java, 4 in East Java, 3 in West Java,

Table

EXPANSION/DEVELOPMENT PLAN OF 1969/70

Year	Number of Offices to be Established							
	General Post Office	Branch Post Office	Sub Post Office	Post Stations	Money Clearing Central Offices	Combined Money Clearing Central Offices	Post Service	Mobile Post Service
1968/69	--	--	--	--	--	--	--	--
1969/70	--	1	3	70	1	1	3	4
1970/71	--	2	5	80	2	2	5	6
1971/72	--	2	3	80	1	1	5	6
1972/73	--	--	2	70	1	1	4	5
1973/74	--	--	2	60	--	--	2	5
Total	--	5	15	360	5	5	19	26

VIII-E-1

THE POST AND POSTAL MONEY SERVICES - 1973/74

Total Number of Offices

General Post Office	Branch Post Office	Sub Post Office	Post Stations	Money Clearing Central Offices	Combined Money Clearing Central Offices	Ambulatory Post Service	Mobile Post Service
191	66	771	1348	8	2	--	--
191	67	774	1418	9	3	3	4
191	69	779	1498	11	5	8	10
191	71	782	1578	12	6	13	16
191	71	784	1648	13	7	17	21
191	71	784	1708	13	7	19	26

2 in South Sumatra and Lampung, 3 in North Sumatra and Atjeh, 2 in West Kalimantan and 2 in Sulawesi.

7. Further improvements in the postal money clearing and cheque service.
   These include :
   a. the setting-up of four postal money clearing central offices, one each in Medan, Makasar, Surabaja and Palembang;
   b. the setting-up of five combined postal money clearing central offices, one each in Djember, Manado, Denpasar, Pontianak and Bandjarmasin.
8. The intensification of control and safeguarding measures on the follow-up of service orders involves:
   a. expansion of the Central Office building of the state enterprise P.N. Post & Giro in Bandung;
   b. establishment of four offices for the post and postal money clearing, district chiefs in Semarang, Palembang, Medan and Denpasar respectively;
   c. expansion of two buildings for the storage of materials and workshops in Bandung.

The expansion and development plan of the post and postal money clearing services is shown in Table VIII-E-1.

2. Telecommunications

2.1 Situation and Problems

Telecommunications as an infrastructural component plays a role that cannot be ignored in national economic development. In line with government policies, efforts in this field are designed to improve services by a gradual replacement of inefficiently operating equipment and new construction in some areas.

The present condition of the telecommunications network may be described as follows; (a) 23 automatic telephone centers; 33 Central Battery (CB) powered manual telephone centers; 480 Local Battery (LB) powered manual telephone centers; 17 international telegraphic communications; 450 domestic telegraphic communications; and 17 teleprinter/telex centers; (b) there are at present approximately 172,000 telephone connections; automatic telephone centers are found in most major cities such as Djakarta, Bandung, Solo, Malang and Palembang; (c) either cable links or radio communication are used both for long distance telegraphic and telephone communications; (d) Djakarta and Bandung have been linked by micro-wave communication which makes possible direct long distance communication.

The telecommunication network is still far from the level where it would be able to cope with the rising demands. The following institutions have been making a considerable contribution to the improvement of telecommunications: (a) The Post and Telecommunications Research and Development Institute; (b) The Post and Telecommunications Training Institute. Besides conducting applied research activities, the Post and Telecommunications Research and Development Institute now owns a telephone manufacturing plant with a production capacity of 10,000 connections for the first year. The Post and Telecommunications Training Institute trains telecommunications employees at the intermediate or academic level. To elevate its training standard, this institute is receiving equipment and expert aid under the United Nations Development Program.

2.2 Policies and Measures

In the next five years attempts will be made to rehabilitate and gradually develop and expand the telecommunications system to encompass the most vital parts of Indonesia.

To follow up these policies it is planned:

1. to expand the existing long distance communication facilities with a micro-wave system covering Sumatra - Java - Bali - Nusâtenggara, and an H.F. system as feeder lines.
2. to initiate automation and the setting up of manual telephone centers in some major cities.

Efforts will be made to establish radio telephone links for urgent administrative purposes.

Prior to effecting the implementation of the development plan, surveys and feasibility studies are to be conducted to ensure maximum efficiency in the use of limited funds and manpower. It is within this framework and as part of the foreign assistance cooperation program that this project is now being aided by a survey team and experts from the Australian Government and the World Bank.

To ensure a more effective and more efficient execution of both planning and the implementation of plans in the field of telecommunications it is urgent to have a single management whereby the authority to arrange everything associated with telecommunications is centered within a single agency.

With the policies and measures as stated above, it is hoped that at the end of the implementation of the Five-Year Development Plan inter-city dialing between places as far apart as Banda Atjeh and Kupang will be feasible, and by means of this backbone it would also, in principle, be feasible to establish communication with foreign countries via Singapore and other places.

2.3 Development Targets and Location

2.3.1 Targets

(1) Increase in the capacity of telephone connections

from 172,000 to 257,500 by the end of 1973/74 or an approximate increase of 50 per cent within the next five years.

(2) Extension of the 54 long distance communication transmission channels and the establishment of 11 long distance microwave/radiophone communication links, 18 radio telephone links and eight radio telegraph links.

(3) Upgrading of 10 telegraph transmissions, extending nine HF telex communication links, expanding the quality of 15 HF Morse communication links and 20 teleprint channels.

(4) Buildings should be provided to house the instruments/equipment for the projected communication projects.

(5) Training of personnel to produce 1,360 telephone technicians; 1,850 telephone operators and administration employees; 840 telegraph technicians; 1,710 telegraph operators and administration employees; 1,345 transmission personnel and 530 Central Office employees.

(6) The Post and Telecommunications Research and Development Institute: (a) Telephone assembling: automatic telephones 120,000 connections, table telephones 160,000 sets, switchboards 425 sets. (b) Manufacturing of various types of transmitters 316 sets. (c) Assembling of various types carrier equipment 91 instruments. (d) Manufacturing of several measuring devices totalling 100 pieces.

2-3.2 Location of Development Projects

(1) Installation of automatic telephones. The number of additional new telephones to be installed includes:
(a) 53,680 connections in Java; (b) 20,000 connections in Sumatra; (c) 5,600 connections in Sulawesi; (d) 5,600 connections in Kalimantan.

(2) Installation of CB (central battery) powered manual telephones; replacement of the LB (local battery) powered manual telephone system with a CB system involving 52,280

connections and an extension of the CB system itself covering 2,340 new connections.

(3) The installation of additional new telephone connections as shown in Table VIII-E-2.

(4) Establishing the telecommunication facilities in the sub-districts, primarily in West Irian, by using SSB Transceivers.

(5) Long distance communication development projects:

a) Transmission links based on the transmission wave system:
   1) Transmission wave system with surface links:
      49 links consisting of various types of channels.
   2) Transmission wave system with 5 cable links consisting of 60 voice channels and 36 teleprint channels.

b) Radio Transmission/Radiophone/Microwave Projects:
   1) Microwave Java-Bali-Nusatenggara; Semarang-Surabaja; Surabaja-Denpasar; Denpasar-Kupang.
   2) Microwave Java-Sumatra: Djakarta-Tandjungkarang; Tandjungkarang-Palembang; Pakanbaru-Medan.
   3) Tropo scatter project: Djambi-Pakanbaru; Surabaja-Bandjarmasin; Bandjarmasin-Makasar.
   4) Radiophone/VHF: Atjeh-Sabang; Medan-Malaysia; Solong-Taliwong.
   5) Radio telephone (HF) : 18 links
   6) Radio telegraph : 8 links

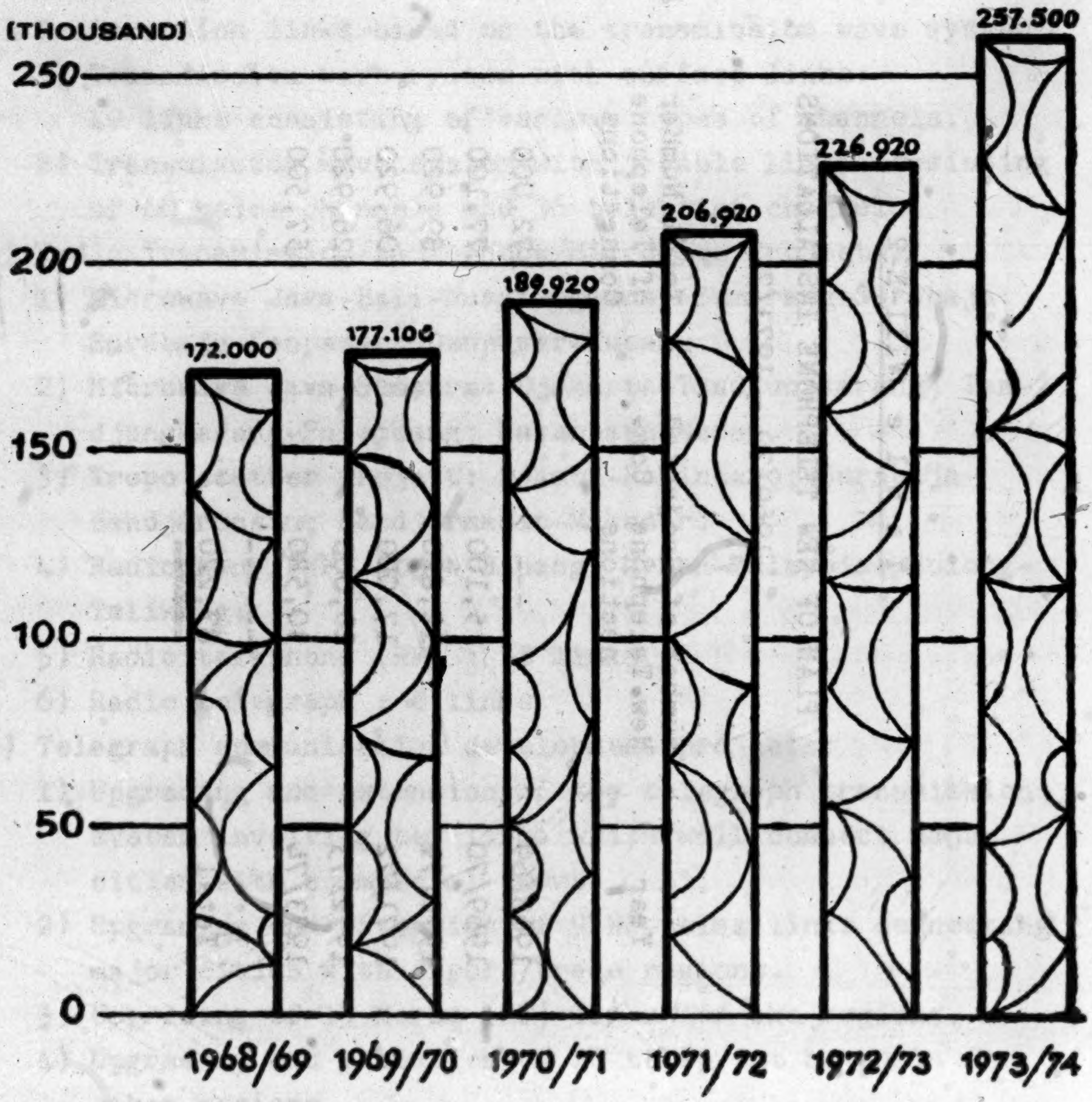
c) Telegraph communication development projects:
   1) Upgrading and extension of the telegraph transmission system involving ten links which will connect major cities with commercial towns.
   2) Upgrading and extension of 9 HF-telex links connecting major cities with export/trade regions.
   3) Upgrading of 15 Morse (HF) links for the regions.
   4) Upgrading and extension of 20 teleprint channels for other regions.

T a b l e VIII-E-2

PLAN OF NEW TELEPHONE INSTALLATIONS
1969/70 - 1973/74

Year	Number of Projected New Telephone Connections	Total Number of Telephone Connections	Percentage Increase
1968/69	---	172,000	---
1969/70	5,100	177,100	3
1970/71	12,820	189,920	4.2
1971/72	17,000	206,920	9
1972/73	20,000	226,920	9.6
1973/74	30,580	257,500	13.4
Total	87,220		

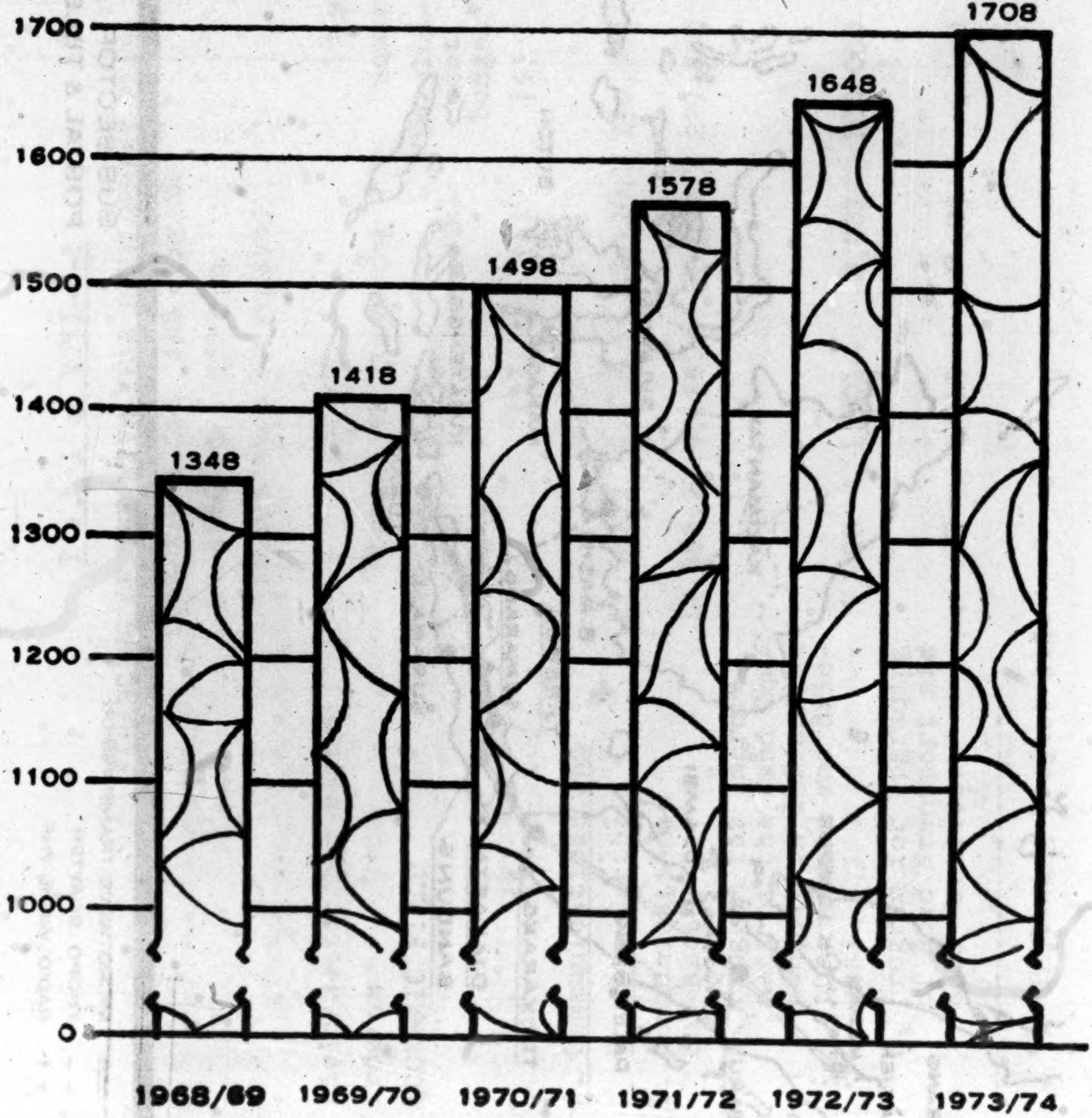
PLAN FOR INCREASING/ADDITION OF TELEPHONES
TOTAL AMOUNT OF TELEPHONE NUMBERS
1968/69 - 1973/74

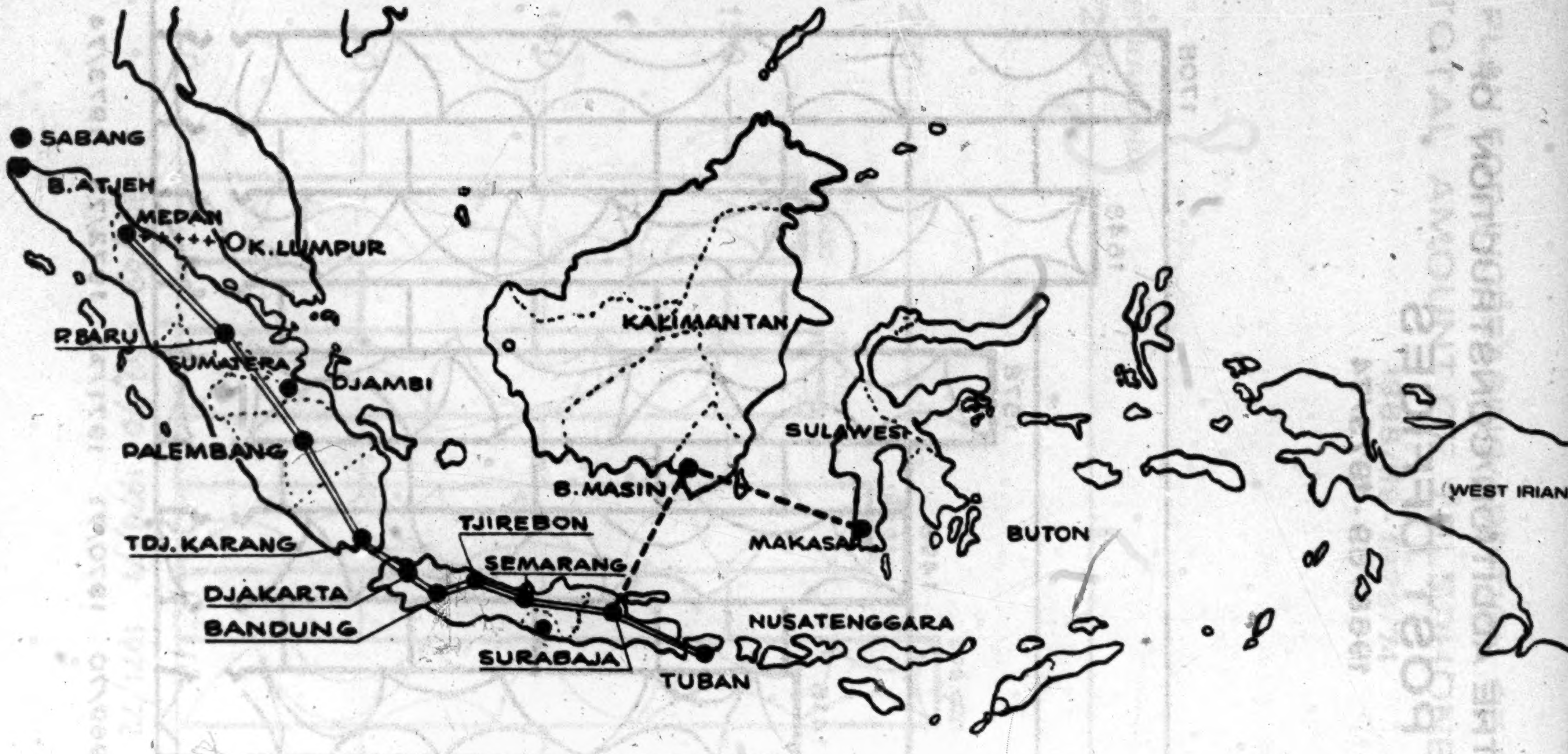


PLAN FOR THE ADDITION/CONSTRUCTION OF

POST OFFICES

1968/69 - 1973/74




SABANG
B.ATJEH
MEDAN
K.LUMPUR
P.BARU
SUMATERA
DJAMBI
PALEMBANG
TDJ.KARANG
DJAKARTA
BANDUNG
TJIREBON
SEMARANG
SURABAJA
TUBAN
KALIMANTAN
B.MASIN
SULAWESI
MAKASAR
BUTON
NUSATENGGARA
WEST IRIAN

=	MICRO-WAVE TRANSMISSION
- -	TROPO-SCATTER
+ +	RADIO-WAVE/VHF

SUB SECTOR : COMMUNICATIONS
POSTAL & TELECOMMUNICATIONS

Table VIII-F-1

FINANCING OF THE FIVE-YEAR DEVELOPMENT PLAN
COMMUNICATIONS AND TOURISM
1969/70 - 1973/74
(in millions of rupiah)

Field/Sector/Sub-sector	1969/70			1969/70 - 1973/74		
Program	Sources of Financing			Sources of Financing		
ECONOMIC FIELD	Development Budget	Project Aid	Total	Development Budget*)	Other Sources	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Communications and Tourism Sector	17,982.2	9,138.5	27,120.7	230,000	35,000	265,000
1. Communications Sub-sector	17,982.2	9,138.5	27,070.7	229,500	33,300	262,800
a. Program for Improvement of the Land Communication Infrastructure (Roads and Bridges)	7,000	1,701	8,701	100,000	--	100,000
b. Program for Upgrading of Road Transport and Road Facilities	90	315	405	4,100	8,300	12,400

---

*) Including Project Aid.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
c. Program for Rail Transport Improvement and Upgrading	2,978.2	2,009	4,987.2	33,250	--	33,250
d. Development Program for Sea Communication Infrastructure	3,688	3,045.4	6,733.4	45,020	--	45,020
e. Program for Commercial Fleet Improvement	--	--	--	--	9,500	9,500
f. Program for River Transport Development	110	--	110	600	--	600
g. Program for Air Communication Infrastructure Improvement	1,560	1,053.5	2,613.5	21,280	3,000	24,280
h. Program for Commercial Air Fleet Development	--	--	-- *)	--	6,000	6,000
i. Program for Increasing Postal and Postal Money Clearing	110	--	110	1,250	--	1,250
j. Program for Improving and Increasing Telecommunication Services	2,396	1,014.6	3,410.6	24,000	6,500	30,500

---

*) Not yet including the financing of other sources to be disbursed partly in 1969.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
2. Tourism Sub-sector	50	--	50	500	1,700	2,200
Tourism Development Program	50	--	50	500	1,700	2,200

B. Expenditure for Communications and Tourism Activities Included in the Financing Plans of Other Sectors

a. }
b. } None.

B. TOURISM

Introduction

Tourism has a good potential for enhancing development efforts. By developing and taking full advantage of this potential, economic opportunities in services, cottage industry and commodity sales could be created and expanded. In this way, tourist activities -- domestic as well as international -- can open up new possibilities and increase employment, while at the same time stimulating the development of other sectors.

Indonesia has a great and diversified tourist potential, both cultural and physical, including its flora, fauna, etc. (See Map 1). Indonesia's geographical position between the continents of Asia and Australia which is on one route of foreign tourist destinations, is advantageous and gives hope for the development of tourism in East Asia (See Map 2).

Another advantage for Indonesia is that the developed tourist attractions in neighboring countries such as Hawaii, Japan, Hongkong, Cambodia, Thailand, Guam, Ceylon, Tahiti, Australia and New Zealand have led to the opening up of new international tourist routes. It can also be said that neighboring countries with a high income such as Japan, Hongkong, Australia and New Zealand have been producing international tourists. All this is convincing evidence of bright prospects for developing tourism as a major foreign-exchange-yielding sector.

1. Situation and Problems

The number of foreign tourists visiting Indonesia annually has reached the 30,000 mark. This number is quite small considering the tourist potential and the flow of foreign visitors received by neighboring countries such as

Hongkong (900,000), Japan (800,000), Thailand (800,000) and Australia (350,000).

The picture described above, gives --on the one hand-- high hopes for increasing international tourist activities in Indonesia, and --on the other hand-- constitutes a reminder of the many shortcomings and obstacles still prevailing in the tourism sector.

a) Interest in Indonesian tourism from general knowledge:

Indonesia's tourist attractions, Bali in particular, have a wide appeal and are known to the whole world, especially their unique cultural aspects. From this standpoint Bali has always been famous and this was unaffected by Indonesia's past political situation. This is a valuable asset which should be exploited for the development of Indonesian tourism.

b) Interest in Indonesian tourism through promotional activities:

Quite a lot of promotional efforts have been made so far, but the role of promotion for Indonesian tourism as a whole has not yet been effective enough. This is because foreign tourists have been dissatisfied with many services and facilities, mainly with communication and transportation, and also with their accommodations which should meet the minimum requirements of health, sanitation and safety.

c) Political and safety situation on tourist activities was immediately felt. The relatively satisfactory situation of political stability at present has reawakened foreign tourists' desire to visit Indonesia. The present situation with respect to safety still needs urgent attention. Any question of safety must have a negative impact on the development of tourism.

d) Flight services to Kemayoran airport as the entrance to Indonesia :

Based on the frequency of incoming international flights. Indonesia could have been visited by more than 150,000 tourists a year. This number has not yet been reached despite most international tourists traveling on a pre-prepared tour itinerary.

e) Domestic flight services :

The number of seats available to tourists traveling to their destination would be sufficient, but it becomes insufficient because of infrequency of flights. For example: The number of Bali-bound flights from Kemayoran can carry an annual total of 30,000 tourists. Only about 10,000 tourists visiting Indonesia flew on to Bali. This means that Bali -- Indonesia's best known tourist attraction -- is visited by only one-third of the total number of foreign tourists Indonesia has been receiving annually.

f) Immigration and customs handling:

Still relatively marred by procedural difficulties and obstructions.

g) Accommodation facilities of international standard:

Accommodation facilities of international standard are now to be found in the following regions:

West Java with a total capacity of 792 rooms
Central Java with a total capacity of 112 rooms
Bali with a total capacity of 465 rooms.

It is estimated that this number is able to accommodate more than 150,000 tourists a year. As the hotels are concentrated in only a few places, it is urgent to build more accommodation facilities in the interest of tourist development.

h) Tourist attractions, recreational facilities, performances and services :

In general, tourist attractions require urgent attention to maintenance and improvement. In addition there is still a shortage of recreational facilities where the minimum health and sanitation requirements can be met. Performances need to be better selected and better directed to avoid weariness on the part of the spectators. Another problem is general services and facilities, mainly those involving the condition of roads, transportation and communications which generally are still unsatisfactory and tiring to the foreign tourist. Attention should also be paid to the condition of public places such as parks and rest houses. Coffee shops, eating houses, and food carts meeting the minimum health and sanitation requirements are still too few and not well distributed. Tourists, however, would enjoy being able to use such places as they would be able to observe there part of the life of the local community.

2. Policies

a) At present, tourist development activities are not being carried out on an overall basis, but are concentrated on a priority basis in Bali. The expansion of tourist activities will be handled and directed later with Bali as a starting point. This, however, does not mean that no attention will be given to tourist activities in other regions. Preparations for their development will continue.

b) The tourist development projects, as far as they involve infrastructural facilities and public services, are financed from the state budget. The remainder is to be borne by the private sector.

c) Domestic tourism, at present, is to be developed by the regions in line with existing conditions and capacities and with the regional development program.

d) To create a climate which would promote the development of tourism.

3. **Measures**

a) Indonesia is to be divided into three tourist development areas, i.e. West Indonesia, Central Indonesia and East Indonesia (See Map 3). Each area is to be developed in stages. First, Central Indonesia, with Bali as its center, comprising East Java, Central Java and West Java, Sulawesi and Nusatenggara. Secondly, West Indonesia which is centered at Medan and includes the tourist areas of North Sumatra.

b) To attract foreign tourists to Indonesia.- The greatest number of foreign visitors (85 to 90 per cent) will be arriving by plane. Measures to be taken include an increase of promotional activities abroad by the opening of tourist offices in Japan, Australia, Europe and North America; and completion of the construction of the Tuban/Bali airport to enable it to accommodate direct incoming international flights operating with high frequency.

c) To improve the services and facilities accorded to tourists visiting Indonesia.- This is to be done by rehabilitating and improving present and potential tourist attractions. Surveys and research activities are to be carried out simultaneously to obtain data for building up consistently well-designed promotion. The development of new tourist attractions will come after completion of the activities stated above. In addition obstacles to tourism will be reduced by the establishment of a National Facilitation Committee which is to draw up all regulations and follow up actions designed to simplify the entry of tourists into Indonesia, for example, in the form of special air agreements. Also, tourist information centers will be set up, primarily in Bali and Djakarta in 1969, and package tours will be extended. Then comes training which is to be intensified to produce highly qualified and expert travel and hotel personnel. In addition, the tourism training institutes will be upgraded while the development and preservation of tourist attractions will be intensified.

d) To improve services to tourists visiting Indonesia, particularly Bali. For this purpose the activities are to be centered in a restricted area within the circle of Denpasar - Kintamani - Singaradja - Bedugul - Denpasar. This area is to be thoroughtly developed as completely as possible, specifically to meet international requirements. Later this area is to serve as a model for the other regions.

Details of the development projects are shown in Appendix I. The projects proposed for Bali are also shown in Map 4.

APPENDIX I

BREAKDOWN OF PROJECTS FOR 1969 - 1970

I. Tourist Infrastructure rehabilitation

(accommodation, communication, services, etc.)

1. **Communications**
   - a. Land transportation :
     - (1) Bali : rehabilitation/upgrading of the main roads, such as : Denpasar - Kintamani - Singaradja - Bedugul - Denpasar; Denpasar - Karangasem - Singaradja - Gilimanuk - Denpasar and Pengastulan - Antosari.
     - (2) East Java : upgrading of roads linking Bali with Surabaja - Jogja and Djakarta; connecting roads to Baluran and Bromo.
     - (3) Central Java : Jogja - Borobudur (Mungkil - Borobudur); Jogja - Dieng (circular road on plateau of Dieng); roads in the vicinity of Prambanan.
   - b. Sea transportation :
     - Bali : rehabilitation of ferry terminal Gilimanuk - Banjuwangi; rehabilitation of Benoa Port and Padang Bay.
   - c. Air transportation :
     - (1) Bali : completion of construction and upgrading of facilities at Tuban airport.
     - (2) East Java : upgrading of facilities at Djuanda-Waru airport.
     - (3) Central Java : upgrading of facilities at Adisutjipto airport.
     - (4) Djakarta : upgrading of capacity at Kemayoran airport.
   - d. Telecommunications : increasing telecommunication net-

work Denpasar - Gilimanuk - Banjuwangi - Surabaja - Jogjakarta - Djakarta; upgrading and supplying local telecommunication network Bali, Denpasar - Gianjar - Tampaksiring - Kintamani - Singaradja - Bedugul - Denpasar; upgrading of the telecommunication links between the tourist centers in Central Indonesia and the tourist-producing countries and the international tourist destinations, particularly in the Pacific area, through the international telex network and the Djatiluhur satellite station.

2. Services (accommodation and transportation)

   a. Accommodations : improvement of existing accommodation facilities; setting up model tourist village and motels in Bali, Djakarta and Jogjakarta.
   b. Transportation : improving local transportation in Bali - Djakarta - Central Java - East Java - North Sumatra; improving long distance transportation Djakarta - Jogja - Surabaja - Bali.
   c. Drinking Water & Electricity : improvement and rehabilitation of services and facilities in Bali and Central Java.

II. Rehabilitation & Restoration of Tourist Attractions

Active control is to be exercised over development and expansion activities in the tourist centers of Bali (Denpasar, Sanur, Ubud, Kintamani and others).

Tourist attractions to be restored or rehabilitated include among others in Bali : the museum of Denpasar and the temple of Besakih; in Central Java : the Borobudur, Tamansari and Dieng Plateau.

1. Other activities

Training of qualified travel and hotel personnel :

a. Domestic training facilities

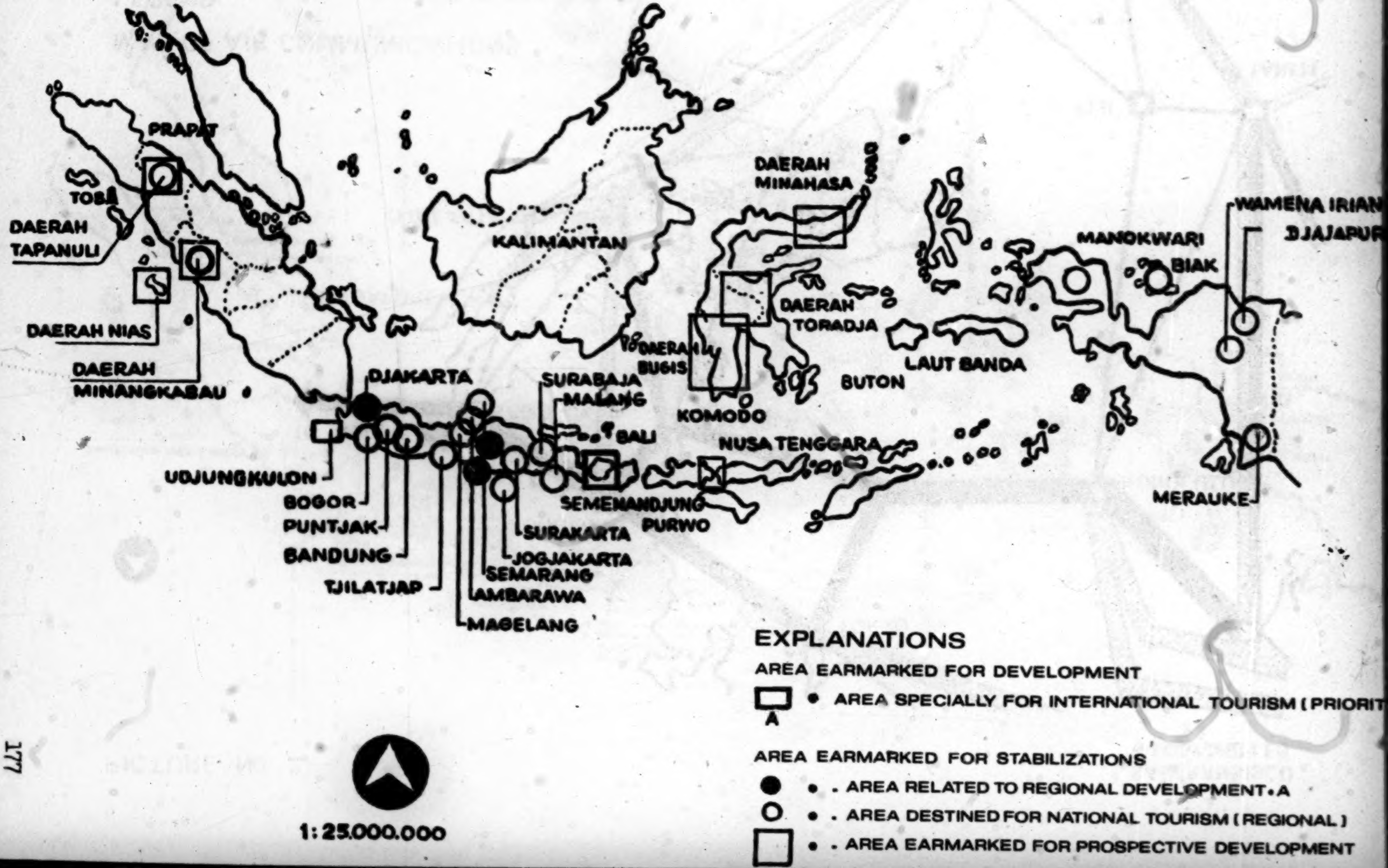
b. Job training abroad.

Research and survey activities for development and evaluation purposes and to collect data for the planning of tourist development programs.

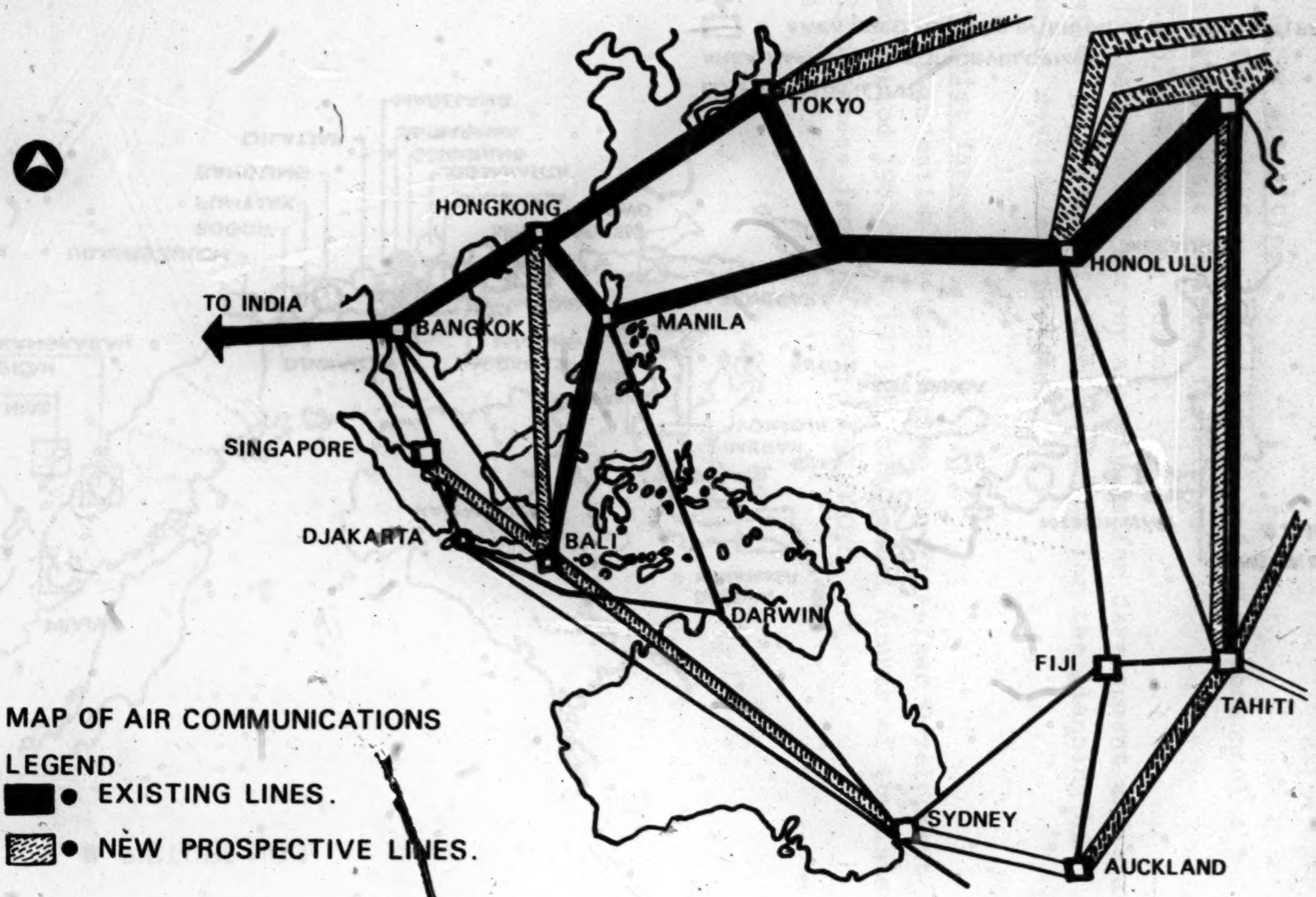
2. Tourist Target

It is estimated that during the Five-Year Development Plan period 1969/70 - 1973/74 the annual number of tourists will increase from 30,000 to 150,000.

● PICTURE NO.1

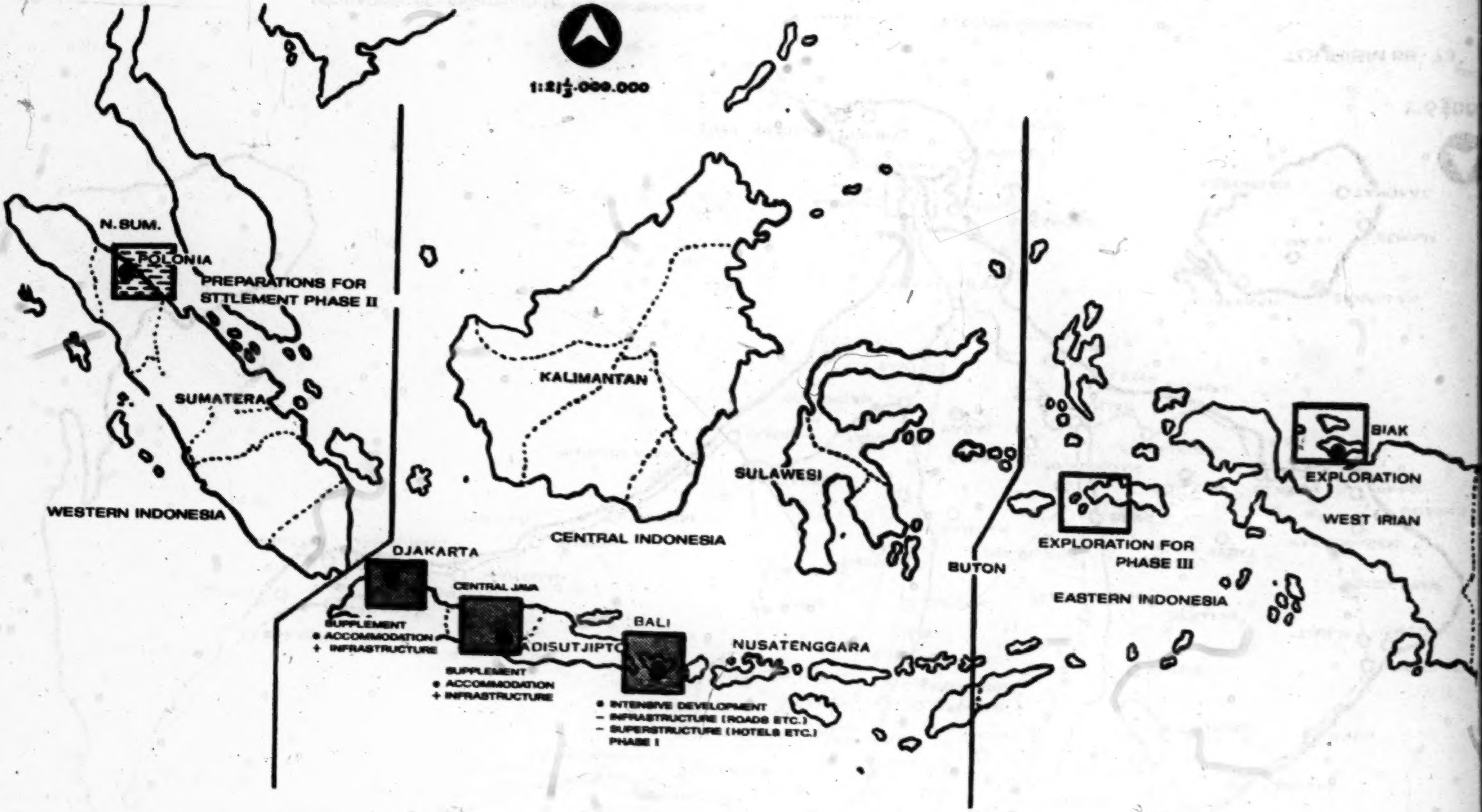

PRAPAT
TOBA
DAERAH TAPANULI
DAERAH NIAS
DAERAH MINANGKABAU
KALIMANTAN
DJAKARTA
UDJUNGKULON
BOGOR
PUNTJAK
BANDUNG
TJILATJAP
MAGELANG
AMBARAWA
SEMARANG
JOGJAKARTA
SURAKARTA
SURABAJA
MALANG
BALI
SEMENANDJUNG PURWO
DAERAH BUGIS
KOMODO
NUSA TENGGARA
DAERAH MINAHASA
DAERAH TORADJA
BUTON
LAUT BANDA
MANOKWARI
BIAK
WAMENA IRIAN
DJAJAPUR
MERAUKE
1: 25.000.000
EXPLANATIONS
AREA EARMARKED FOR DEVELOPMENT
A • AREA SPECIALLY FOR INTERNATIONAL TOURISM (PRIORIT
AREA EARMARKED FOR STABILIZATIONS
● • . AREA RELATED TO REGIONAL DEVELOPMENT • A
○ • . AREA DESTINED FOR NATIONAL TOURISM (REGIONAL)
☐ • . AREA EARMARKED FOR PROSPECTIVE DEVELOPMENT

PICTURE No. 2

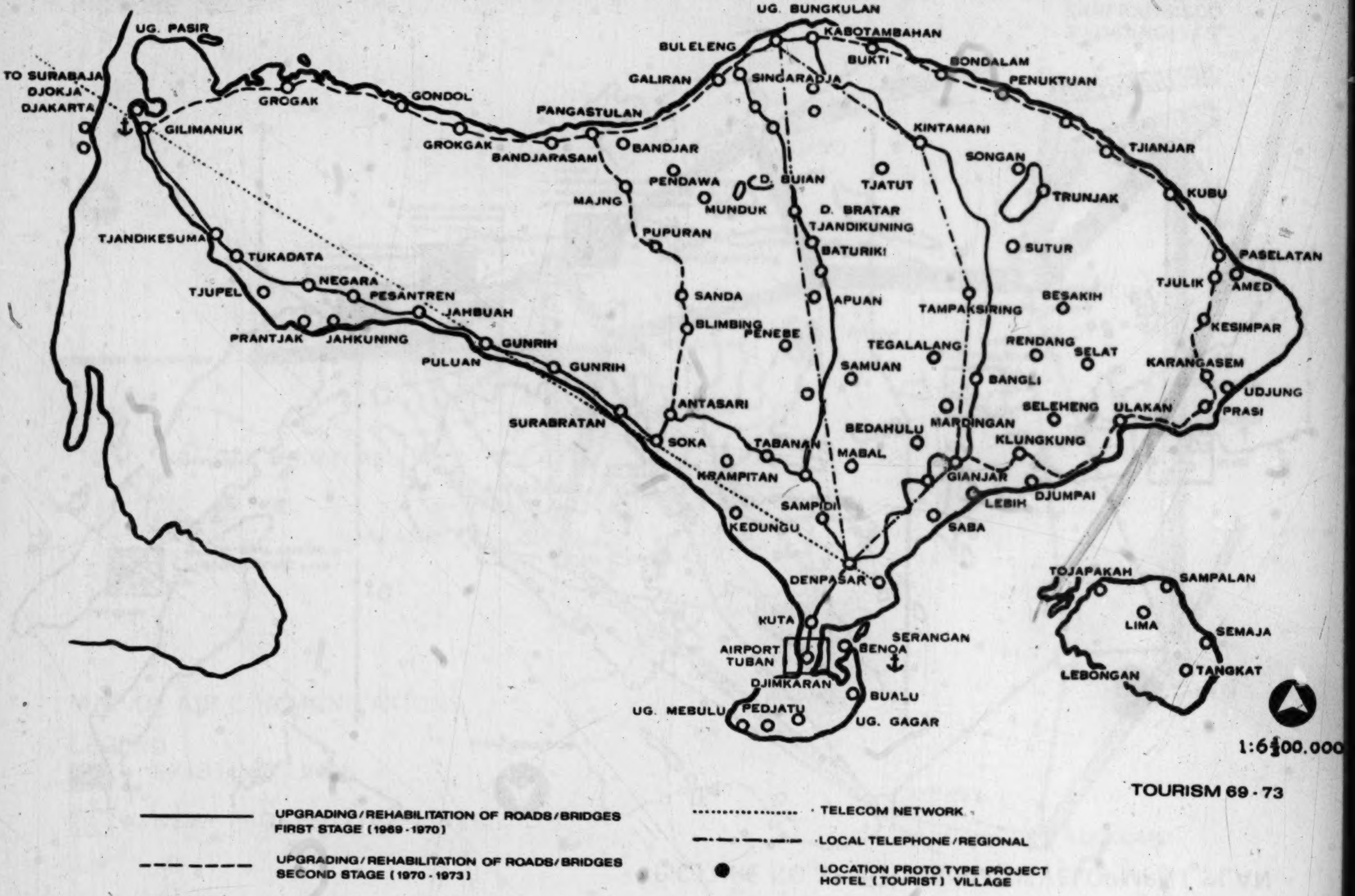

SANFRANSISCO & LOSANGELES
TOKYO
HONGKONG
HONOLULU
TO INDIA
BANGKOK
MANILA
SINGAPORE
DJAKARTA
BALI
DARWIN
FIJI
TAHITI
SYDNEY
AUCKLAND
LEGEND
■● EXISTING LINES.
▨● NEW PROSPECTIVE LINES.

MAP OF AIR COMMUNICATIONS

PICTURE NO.3 • TOURISM DEVELOPMENT PLAN


1:21½.000.000
N.SUM.
POLONIA
PREPARATIONS FOR
STTLEMENT PHASE II
SUMATERA
WESTERN INDONESIA
KALIMANTAN
CENTRAL INDONESIA
SULAWESI
BUTON
BIAK
EXPLORATION
WEST IRIAN
EXPLORATION FOR
PHASE III
EASTERN INDONESIA
DJAKARTA
SUPPLEMENT
● ACCOMMODATION
+ INFRASTRUCTURE
CENTRAL JAVA
ADISUTJIPTO
SUPPLEMENT
● ACCOMMODATION
+ INFRASTRUCTURE
BALI
NUSATENGGARA
● INTENSIVE DEVELOPMENT
– INFRASTRUCTURE (ROADS ETC.)
– SUPERSTRUCTURE (HOTELS ETC.)
PHASE I

PICTURE NO. 4


TO SURABAJA
DJOKJA
DJAKARTA
UG. PASIR
GILIMANUK
GROGAK
GONDOL
GROKGAK
PANGASTULAN
BANDJARASAM
BANDJAR
GALIRAN
BULELENG
UG. BUNGKULAN
KABOTAMBAHAN
BUKTI
SINGARADJA
BONDALAM
PENUKTUAN
KINTAMANI
SONGAN
TRUNJAK
TJIANJAR
KUBU
PENDAWA
D. BUIAN
MUNDUK
MAJNG
TJATUT
D. BRATAR
TJANDIKUNING
BATURIKI
PUPURAN
SUTUR
PASELATAN
TJULIK
AMED
TJANDIKESUMA
TUKADATA
TJUPEL
NEGARA
PESANTREN
JAHBUAH
PRANTJAK
JAHKUNING
GUNRIH
PULUAN
GUNRIH
SANDA
BLIMBING
PENEBE
APUAN
TAMPAKSIRING
BESAKIH
KESIMPAR
TEGALALANG
RENDANG
SELAT
KARANGASEM
SAMUAN
BANGLI
UDJUNG
SURABRATAN
ANTASARI
SELEHENG
ULAKAN
PRASI
BEDAHULU
MARDINGAN
SOKA
TABANAN
MABAL
KLUNGKUNG
KRAMPITAN
GIANJAR
LEBIH
DJUMPAI
SAMPIDI
KEDUNGU
SABA
DENPASAR
TOJAPAKAH
SAMPALAN
LIMA
SEMAJA
KUTA
SERANGAN
AIRPORT TUBAN
BENOA
LEBONGAN
TANGKAT
DJIMKARAN
BUALU
UG. MEBULU
PEDJATU
UG. GAGAR
1:600.000
TOURISM 69 - 73
UPGRADING/REHABILITATION OF ROADS/BRIDGES FIRST STAGE (1969 - 1970)
UPGRADING/REHABILITATION OF ROADS/BRIDGES SECOND STAGE (1970 - 1973)
TELECOM NETWORK
LOCAL TELEPHONE/REGIONAL
LOCATION PROTO TYPE PROJECT HOTEL (TOURIST) VILLAGE

THE FIRST FIVE-YEAR DEVELOPMENT PLAN

(1969/70 - 1973/74)

Volume 2c

14651
v 2
Pt. 6

21 NOV 1969

DEPARTMENT OF INFORMATION
REPUBLIC OF INDONESIA

TABLE OF CONTENTS

VOLUME II-C

PRESIDENTIAL DECISION No. 319/1968 xiii

FIVE-YEAR DEVELOPMENT PLAN 1969/70 - 1973/74: CONTENTS OF COMPLETE SERIES xvii

Chapter IX : RELIGION 1
1. Position and Role of Religion 1
2. Situation and Problems 22
3. Policy and Measures 3
4. Development of Religious Infrastructure 5
a. Holy Books 5
b. Places of Worship 5
c. Wedding Halls, Marriage Counselling and Family Welfare Halls 5
5. Religious Education 6
6. Pilgrimage 7

Chapter X : EDUCATION AND MANPOWER 9
A. EDUCATION 9
- Introduction 9
1. Situation and Problems 10
2. Policies and Measures 12
2.1 Program for Improving the Quality of Primary Education 15
2.2 Program for Increase of Vocational Education at General Secondary Schools 17
2.3 Program for Improvement of Technical and Vocational Education 17
2.4 Program for Improvement of Teachers Education 20
a. Education of Primary School Teachers 21
b. Education of Secondary School Teachers 21
2.5 Development of Higher Education 22
2.6 Community and Adult Education 23
2.7 Program for Development of Education 23
2.8 Development of Culture and Sports 24
2.9 Institutional Education and Training 26
2.9.1 Agriculture 26
a. Agricultural Education and Guidance 26
b. Other Educational Activities 29
2.9.2 Textiles and Cottage Industry 30

2.9.3 Public Works and Electric Power 31
2.9.4 Communications 31
2.9.5 Economy and Finance 32
a. Finance 32
b. Trade 33
c. Cooperatives 33
2.9.6 Social Fields 33
a. Health 33
b. Information 34
c. Social Welfare 35
d. Religion 35
e. Government Administration 35
2.10 Program for Development of Research and Surveys 36
B. MANPOWER 37
1. Situation and Problems 37
2. Problems 42
3. Policy and Measures 43
4. Care and Protection of Manpower, Development of Labor Relations 47
5. Wages and Social Security 47

Chapter XI : HEALTH AND FAMILY PLANNING 49
A. HEALTH 49
- Introduction 49
1. Situation and Problems 49
1.1 Contagious Diseases 50
a. Malaria 50
b. Smallpox 50
c. Tuberculosis 50
d. Cholera 50

e. Plague 51
f. Framboesia 51
1.2 Hygiene and Sanitation 51
1.3 Health Facilities 51
1.4 Medical and Paramedical Personnel 52
1.5 Pharmaceuticals 53
1.6 Transportation 53
2. Policy and Measures 53
2.1 Public Health Instruction 54
a. Health Programs in Schools 54
b. Hygiene and Sanitation 55
c. Guidance in Nutrition 55
d. Public Participation 55
2.2 Improvement of Health Infrastructure 56
a. Public Health Centers 56
b. Clinics and Centers for Mother and Child Welfare 57
c. Hospitals 60
d. Health Laboratories 60
2.3 Eradication of Contagious Diseases 60
a. Malaria 61
b. Tuberculosis 61
c. Smallpox 61
d. Framboesia 62
e. Syphilis 62
f. Leprosy 62
g. Plague 62
h. Cholera 63
i. Quarantaine 63

2.4 Rehabilitation and Improvement of Health 63
a. Improvement of Nutrition 63
b. Mental Health 64
c. Dental Health 64
d. Eye Health 65
2.5 Surveys and Research 65
2.6 Training of Health Personnel 66
2.7 Medicines and Medical Equipment 66
B. FAMILY PLANNING 68
1. Condition and Problems 69
2. Policy and Measures 69
3. Information 72
4. Education 72
5. Health Service 73
6. Supply of Equipment 74
7. Research 74

Chapter XII : HOUSING AND SOCIAL WELFARE 77
A. HOUSING AND DRINKING WATER 77
- Introduction 77
1. Situation and Problems 80
1.1 City Housing 80
1.2 Housing in the Villages 81
1.3 City Planning and Village Planning 82
2. Policy and Measures 82
2.1 General 82
2.2 City Housing 82
2.3 Village Housing 85
2.4 City Planning, Regional and Village Planning 85
2.5 Techniques of Sanitation 86

B. SOCIAL WELFARE 87
- Introduction 87
1. Situation and Problems 87
2. Policies and Measures 89
    2.1 Village Social Welfare 89
        2.1.1 Village Social Institutes 89
        2.1.2 Settlement of Primitive Peoples 89
    2.2 Social Changes 90
    2.3 Education, Research and Surveys, Guidance and Construction 90
    2.4 The Welfare of Children, Family and Society 90
        2.4.1 Children's Welfare 91
        2.4.2 Youth Welfare 91
        2.4.3 Family Welfare 92
    2.5 Rehabilitation of the Physically Handicapped 92
    2.6 Welfare for the Victims of the Independence War 92
    2.7 Victims of Natural Disasters and Others 92
        2.7.1 Natural Disasters 92
        2.7.2 Victims of the G-30-S Communist Coup 92
    2.8 Repatriation 93
    2.9 Social Funds 93

Chapter XIII: LEGAL ORDER AND INFORMATION 95
A. LEGAL ORDER 95
- Introduction 95
1. Situation and Problems 96
    a. In the legislative field 96

b. In the law enforcement field 97

2. Policy and Measures 98

2.1 The Legislative and Law-making Field 98

2.2 The Law Enforcement/ Adaptation Field 99

B. INFORMATION 103

- Introduction 103

1. Situation and Problems 104

2. Policy and Measures 105

2.1 The Policy and the Targets for Information 105

3. Information Infrastructure 107

Chapter XIV: TRANSMIGRATION AND COOPERATIVES 113

A. TRANSMIGRATION 113

1. Problems 113

2. Policies and Measures 114

B. COOPERATIVES 115

- Introduction 115

1. Situation and Problems 116

2. Policies and Measures 117

2.1 Education, Guidance and Research 118

2.2 Development of Organization and Control 120

2.3 Guidance for Cooperative Undertakings 120

Chapter XV : NATIONAL DEFENSE AND SECURITY 121

1. General 121

2. National Defense and Security 121

2.1 Policy of National Defense and Security 121

2.2 Strategy of National Defense and Security 122

2.3 Functions of National Defense and Security 122

3. The Civic Mission of the Armed Forces of the Republic of Indonesia 122

4. Condition Evaluation 123

5. Main Policy 124

5.1 Conceptual Matters 124

5.2 Contribution to Development 124

5.3 As a Social Force 125

5.4 Civic Action 125

5.5 Development Enterprises 125

6. Measures 125

Chapter XVI : RESEARCH AND STATISTICAL DEVELOPMENT 127

A. RESEARCH 127

1. The Situation at Present 127

2. Scientific Organizations in Indonesia 128

3. Scientific Literature 131

4. Scientific Information and Communication 131

5. Scientific Instruments 133

6. Space Facilities 134

7. The Condition of Research in Indonesia 134

8. The Problems Being Faced 136

9. Direction 138

9.1 The Rehabilitation of Existing Research Institutions 138

9.2 The Training of Scientific Manpower and Technicians 139
9.3 Expansion of Communication and Information in the Field of Science and Technology 139
9.4 Scientific Instruments 140
B. THE DEVELOPMENT OF STATISTICS 140
- Introduction 140
1. Agriculture 141
2. Population Census 142
3. Social Economic Survey 142
4. Industry 143
5. Trade 143
6. Village Statistical Data 143
7. The Organization of Statistics 144

LIST OF TABLES

IX-1 : Five-Year Development Budget: Religion 7
X-A-1 : Primary School Population 16
X-A-2 : Expansion of State Secondary Schools 19
X-A-3 : Expansion of State Higher Grade Schools 19
X-A-4 : Planned Output of Sports Academies 25
X-A-5 : Planned Output of Sports Highschools 25
X-A-6 : Five-Year Development Budget: Education and Culture 38
XI-A-1 : Increase in the Number of Clinics and Centers for Mother and Child Welfare 58
XI-A-2 : Increase of Health Personnel 67
XI-B-1 : Target of the Family Planning Service 71
XI-B-2 : Number of Family Planning Clinics 71
XI-1 : Five-Year Development Budget: Public Health and Family Planning 75

XII-1 : Five-Year Development Budget: Housing, Social Welfare and Drinking Water Supply 94
XIII-A-1 : Five-Year Development Budget: Legal Order 102
XIII-B-1 Five-Year Development Budget: Information 110
XIV-B-1 : Situation of Cooperatives According to Type 119
XIV-B-2 : Development of Cooperatives 119

GRAPH

Improvement of Health Infrastructure 59

PRESIDENTIAL DECISION No. 319
OF THE YEAR 1968
CONCERNING
THE FIVE-YEAR DEVELOPMENT PLAN

THE PRESIDENT OF THE REPUBLIC OF INDONESIA

Considering :

1. that it is the aim of struggle of the New Order to raise the standard of living of the People of Indonesia, which aim can only be achieved by carrying out development by stages and according to plan;
2. that the results which have been achieved under the program of political and economic stabilization, have at present become a basis for the implementation of development which is strong enough;
3. that based on MPRS Decree No. XLI/MPRS/1968, the task of composing and implementing the Five-Year Development constitutes one of the duties of the Development Cabinet;

4. that the Government has, at present, succeeded in composing the Five-Year Development Plan 1969-1973, which will become a basis and guide for the Government in carrying out above-mentioned MPRS Decree from year to year;
5. that based on above-mentioned considerations, it is deemed necessary to issue a Presidential Decision to authorise the Five-Year Development Plan 1969-1973;

Having in mind : 1. Article 4 (clause 1) of the 1945 Constitution;
2. MPRS. Decree No. XLI/MPRS/1968;
3. Presidential Decision No. 183 of the year 1968;

Having heard : The considerations of the National Development Planning Board and deliberations during sessions of Cabinet;

HEREBY DECIDES

To enact : A DECISION OF THE PRESIDENT OF THE REPUBLIC OF INDONESIA CONCERNING THE FIVE-YEAR DEVELOPMENT PLAN 1969-1973:

Article 1

The Five-Year Development Plan as contained in Volume I, II and III of the annex to this Presidential Decision constitutes a basis and guide for the Government for the implementation of the Five-Year Development as has been char-

ged by MPRS.

Article 2

Implementation policies of the Five-Year Development Plan will be molded into Annual Plans which are reflected in State Budget and other policies.

Article 3

The molding into Annual Plans as meant in Article 2 of this Presidential Decision, is carried out while considering possibilities for changes and developments in the situation which necessitate adjustments of the Five-Year Development Plan.

Article 4

This Presidential Decision comes into force on the day of enactment.

Enacted in Djakarta,
On the Thirtieth Day of December 1968.

PRESIDENT
OF THE REPUBLIC OF INDONESIA
(sgd.)
SOEHARTO
General of the TNI

4. that the Government has, at present,

[illegible]

FIVE-YEAR DEVELOPMENT PLAN
1969/70 -- 1973/74

CONTENTS OF COMPLETE SERIES

VOLUME ONE
General

Chapter I : Aim, Target and Policy
Chapter II : Financing the Plan
Chapter III : International Balance of Payments
Chapter IV : Regional and Rural Development
Chapter V : Government Administration, Plan Implementation and Annual Operational Plan

VOLUME TWO-A
Plan According To Fields

Chapter VI : Agriculture and Irrigation

VOLUME TWO-B

Chapter VII : Industry, Mining and Electric Power
Chapter VIII: Communications and Tourism

VOLUME TWO-C

Chapter IX : Religion
Chapter X : Education and Manpower
Chapter XI : Health and Family Planning
Chapter XII : Housing and Social Welfare

Chapter XIII: Justice and Information
Chapter XIV : Transmigration and Cooperatives
Chapter XV : Defence and National Security
Chapter XVI : Research and Statistical Development

VOLUME THREE

Specification According To Regions

****

CHAPTER IX

RELIGION

1. Position and Role of Religion

Religion has a vital position in the Republic of Indonesia.

In the Republic of Indonesia, religion represents not only the universal service of creation to its Creator but also gives citizenship a nobility that constitutes a spiritual infrastructure to the success of national development efforts.

Religion serves also as a protection against the poison of atheism-communism that undermines the Pantjasila foundation of the Republic.

The Government, in conformity with the provision of Article 29 of the 1945 Constitution and MPRS Decree No. XXVII/1966, has the duty of giving guidance and assistance in religious development in accordance with all religious teachings and of conducting the supervision in such a way that the fulfilling of these religious teachings by each citizen and the development of religion according to all systems of belief can run smoothly, orderly and harmoniously.

The Government is obliged to protect every effort in religious development and worship according to everyone's faith provided that those activities do not violate existing laws, and do not disturb security and general order.

2. Situation and Problems

The facts show that the spirit of Pantjasila and Religion as the foundation for the formation of high moral standards, good character, and a strong mental attitude which are the basic instruments for the successful carrying out of the whole development program, is not yet well implanted in the society.

Besides, the propagation and dissemination of atheistic teachings and beliefs by communist groups in the past has still left behind its influence in the society.

Religious toleration in the society, particularly in the implementation of development programs and propagation of each religion, are still sometimes less than harmonious.

Religious education and the development of a religious spirit in educational institutions is not yet going smoothly. It is still felt that religious education in Higher Education Institutes is still searching for the right structure of curriculum and is still short of adequately qualified teaching personnel and other material facilities.

Houses of worship such as mosques and churches, do not function adequately yet as centers of religious activities.

In the meantime, isolated groups are found in some areas who, in general, still believe in atheism or in no religion at all. Along with programs for "socializing" them the problem of their religious life will also be tackled.

The problem of financing and staffing which continues up to the present, will be given serious attention.

3. Policy and Measures

Considering the problems facing the field of religious development, the primary targets to be reached in this field will be:

a. groups who do not yet believe in religion or in One Almighty God including atheistic and animistic groups, will be led to the belief in One Almighty God, according to their own faith and choice;

b. groups who already believe in One Almighty God, will be led to having a deeper faith and noble character based on our common religious beliefs;

c. the implanting and guiding of a spirit of religious toleration among all religious groups.

The principle policy to be followed in this field of religious development, is to ensure that the religious spirit, developed and guided, will be reflected and realized clearly in every day behavior, in accordance with our common religious teachings.

Activities and the content of religious information directed to the various social groups will be intensified to enhance the implanting and dissemination of the religious spirit, directed to non-believing groups as well as to those already embracing a religion. In this context, former members of the communist party and the members of its affiliated organizations and their families will be given special attention.

For the smooth and orderly carrying out of this religious information service the needed facilities will be provided by supplying, among other things, material such as suggestions for sermons, lessons in religion and so forth.

Steps will be taken, gradually, to rehabilitate and put to use places of worship, religious centers, religious teaching institutes ("pesantren"), etc., and regular planned activities will be carried out to improve the training of religious teachers and religious information personnel to broaden their knowledge and deepen their Pantjasila spirit. Along with these, greater efforts will be made to prevent the emergence or spreading of power-elements and beliefs running counter to religions recognized by the Government, and practices of faith violating religious norms.

In the field of religious education, improvement of curriculum content and the methodology of religious education will be carried out, along with a program of recruiting and upgrading religious teachers for government as well as private religious institutions.

One of the requisites for success in the program of spiritual development is the availability of sufficient holy books for each religion. To supply these, the printing of holy books, which has already been launched, will be continued during this Five-Year Development Plan.

Activities in the field of social welfare will be continued, primarily in the giving of advice and information regarding matters of marriage, divorce, etc., including family planning, to be carried out in accordance with the religious beliefs and moral principles of everyone concerned.

In order to maintain and develop religious toleration, the "Badan Musjawarah Antar Agama" (Agency for Interreligion Consultations) needs to be made more active by conducting more concrete programs and by authorizing it to tackle problems emerging in this field.

In the framework of ordering and adjusting existing laws to better conform to the aspirations and life of the Indonesian Nation, based on the Pantjasila, there needs to be undertaken the creation of new statutory provisions or laws which are closely linked with religious norms to regulate the life of the Indonesian citizen.

This creation of statutory provisions or laws will be carried out within the context of legal order and the overall development of national laws.

The implementation of these programs depends largely on the participation of the people in their financing as well as execution, while government activities will be restricted to the giving of guidance, arranging or developing sources of aid and facilities, and supervising implementation.

Foreign assistance will be utilized, to the maximum extent possible, for the benefit of society.

4. Development of Religious Life Infrastructure

a. Holy Books

Within the period of the Five-Year Plan, holy books will be made available in quantities,determined by the percentage of the total of followers of each religion, and the funds available.

The project of printing the Qur'an in Tjiawi will be completed by mobilizing funds from the Muslims themselves.

b. Places of Worship

There are not in existence enough houses of worship that meet the requirements. Religious groups encounter difficulties in erecting their proper worship houses because of their weak economic conditions. Therefore, aid will be provided for the building or rehabilitation of houses of worship in certain places, in accordance with the ability of the Government.

c. Wedding Halls, Marriage Counselling and Family Welfare Halls

In the five-year plan it is intended to build wedding halls and marriage counselling/and family welfare bureaus according to existing needs and the funds available.

5. Religious Education

The building of P.G.A.N. (State Religious Teachers Training College) and I.A.I.N. (State Islamic Religious Institute) will be carried forward and completed in 1973.

Research on the improvement of religious education will be intensified, mainly using the existing PGAN and IAIN.

6. Pilgrimage

The construction of boarding houses for Hadji pilgrims in ports will be pushed on with government guidance, aid and supervision. In addition, better payment procedures in the carrying out of this pilgrimage will be developed.

Table IX-1

FIVE-YEAR DEVELOPMENT BUDGET
RELIGION
1969/70-1973/74

(in millions of rupiah)

Field/Sector/Sub-Sector/Program	Development Budget 1969/70	Development Budget 1969/70-1973/74
(1)	(2)	(3)
FIELD : SOCIAL		
A. Sector: Religion	606	5,290
Sub-sector: Religion	606	5,290
a. Program: Provision of Religious Life Infrastructure	200	1,746
b. Program: Religious Information and Guidance	49	428
c. Program: Improved Welfare of Hadj Pilgrims	24	210
d. Program: Supervision of and Assistance to Private Religious Foundations	13	113
e. Program: Building of Istiqlal Mosque	320	2,793

(1)	(2)	(3)
B. Religious Activities Allocations for which Are Included in Other Sectors		
a. Religious Education (included in Sector for Education and Culture, Sub-sector for Institutional Education and Research)	533	4,344
b. Religious Research (included in Sub-sector for Institutional Research)	35	298
c. Improvement of Physical Infrastructure (included in Sector for General Administration, Sub-sector for General Government)	146	821

CHAPTER X

EDUCATION AND MANPOWER

A. EDUCATION

Introduction

Education must be closely linked with the need as well as possibilities of economic and social development so that it can equip pupils for their life, and fulfill community needs.

Considering that this Five-Year Development Plan forms the foundation for the next development stages giving priority to agriculture, industry supporting agriculture, small and light industry, mining industry, infrastructure and tourism, programming must be adapted to these priorities. This is needed above all in levels of education which will produce graduates in the coming five years.

In the meantime, as preparation for the following development stages, within the coming five years, education must undergo some reforms in order to make schools an integral, suitable and useful part of the life of the community. It is then hoped that at the end of this Five-Year Development Plan a base can be found for a suitable educational system and structure oriented to economic and social development efforts in the future:-

1. Situation and Problems

a. The educational situation in Indonesia shows some imbalance. First, imbalance between the school-age population and the number of facilities which can be provided for them. This is the more felt because of the greater desire on the part of the people to obtain education and knowledge than in the years past.

Secondly, educational imbalance in the horizontal sphere between type and form of education. The level of progress that has been achieved in the field of vocational and technical education is, relatively, very low compared to that of general education. At present, the ratio of students of junior high schools of general and of vocational character is 2 : 1. The proportion of students in 1967 were as follows: general secondary schools (S.M.P.) 772,000 and vocational secondary schools 224,000; among the 447,000 higher grade school students there are 260,000 following the general line, 117,000 vocational and technical line and 100,000 teacher's training.

At the level of higher education there is a greater flow of students to non-exact science faculties than to faculties which relatively are needed more such as the faculties of agriculture, technology etc. The ratio of the numbers of students at social and exact science faculties is 2 : 1 being 155,000 and 75,000 respectively in 1967.

This imbalance causes an unsuitable proportion between the supply and the need of manpower for development. Especially in the field of agriculture, which is the source of living for the larger part of the Indonesian people and is accorded first priority in this Five-Year Development Plan, secondary and higher education show many shortcomings.

Thirdly, vertical imbalance, the ratio between primary, secondary and higher education/academies. It is a fact that secondary schools, particularly vocational and technical, lag behind in progress compared to other levels of education. In 1967 there were 13 million primary school pupils, 1 million secondary, 500,000 higher grade school students and 230,000 students of various state as well as private universities and academies.

b. In fact, there are still quite a large number of illiterates in Indonesia. This is caused by population growth particularly of school-age groups who can not enter school for various reasons, and by the absence of follow-up for those who have completed literacy courses.

c. Besides, there is still too large a number of students who leave school before completion particularly the primary school and higher education. The number of drop-outs from primary schools is very large, being more than 50 per cent. This is shown by the numbers of primary school children in 1967; there were 3,213,000 in the first class and only 978,000 in the sixth. The drop-out rate at the higher education level is revealed by the percentages of students of each grade at all faculties which were as follows in 1967: first year students 49 per cent, second year 18.9 per cent, third year 16 per cent, fourth year 9.5 per cent, fifth year 5,7 per cent, and sixth year 0.9 per cent (Medical Faculty). This, obviously, represents a great loss to the investment in education, and an impediment to development efforts. This has been brought about by the low quality of education and by socio-economic factors which limit the learning opportunities for children and youth.

d. The quality of educational achievements is not satisfactory yet on account of weaknesses in curriculum and a a shortage of qualified teachers.

1) A curriculum not designed to meet the needs of the society particularly at the secondary school level produces secondary general school graduates without any training that can be of direct use for development.
2) Teaching methods still need to be improved. The method of the evaluation of learning (the method of the evaluation of a student's abilities) emphasizing examinations leads to learning aimed at passing examinations only.

e. As regards the problem of teachers, first of all, the shortage of qualified teachers must be tackled. For example, 24 per cent of the teachers in primary schools in 1967 (the total number is 286,000) were not qualified and more than 54 per cent were only partly qualified.

This shortage of teachers was caused by among other things, the discharge of those involved in the G-30-S/PKI (Indonesian Communist Party abortive coup); the lack of respect for, or recognition of, the services rendered by teachers so that some of them leave their profession; and the insufficient number of graduates of teachers' training institutes.

f. The administration of education also suffers from various shortcomings.

2. Policies and Measures

The development of education is based on the national philosophy, the Pantjasila, and on the principle that education constitutes a national investment in human abilities. The objective of development in the education sector, in addition to producing trained manpower for development, is to bring about changes leading to a more rational and democratic society in accordance with Indonesian identity utilizing science and technology.

The educational program in the horizontal line will be directed to the needs of education and training for priority sectors such as agriculture, industry supporting agriculture, textile industry, light and cottage industry, mining, infrastructure and tourism.

In the vertical line, the educational program will be directed toward improving the balance by putting emphasis on secondary education. Attention will be given to the expansion of secondary technical and vocational education to meet the manpower needs of priority sectors.

Agricultural education will get the greatest attention because the field of agriculture has been accorded first priority in the Five-Year Development Plan. The education of farm workers will also be carried on to improve their skills, introduce new methods, and increase productivity. The training and upgrading of agricultural extension workers (technical staff) will be intensified. In addition, better teaching methods will be developed by expanding the use of very simple, practical, and cheap physics equipment, oriented to agriculture. As far as possible audio-visual aids will also be employed, such as radio and television. For this purpose foreign assistance will be utilized to the fullest extent possible.

The provision of qualified teachers, being a decisive factor in improving the quality of education, will be given special attention. Of no less importance is the distribution of teachers according to the specific needs of each region, and higher pay for the profession of teachers and educationists.

In this context, the balancing of the proportion of teachers to educational administrative personnel constitutes an important aspect of the efforts to make use of all educational workers and the budget allotted to education more effectively.

Efforts to eradicate illiteracy will be intensified by conducting follow up study. These efforts are to be integrated with the program of adult education which is aimed at the teaching of civic responsibility and increasing vocational skills according to everyone's field of life including education for women to extend their knowledge of and skill in domestic affairs.

Cultural education, both formal and informal, will be developed further. In addition, cultural monuments (museums and temples) and other ancient heritages will be developed which will expand tourism also.

Physical education will be directed to the formation of a population that is healthy and strong in body and mind, and to the promotion of enthousiasm for sports among the people.

Scouting and youth development will be conducted as a supplementary extra-curricular program to develop the character, personality and skills of the younger generation, as a practical preparation for useful citizenship.

The policies outlined above require the development of educational infrastructure such as teaching material and buildings. In this connection too, priority will be given to the rehabilitation and use of existing teaching material and buildings, and the more efficient use of them. The expansion of all those already in existence will have priority over the building of new ones. As regards books and the printing of learning material, primary attention will be given to the printing of basic books. Existing liberaries will be improved. The provision of "book packages" for primary and secondary schools will be worked out.

Research and survey activities will be concentrated on and directed toward those endeavors having a direct connection with development programs. Research in the field of education and instruction is to emphasize development, and to be directed toward it. In the meantime, research will be conducted on problems of social change accompanying and arising out of development and modernization.

Educational expenditures will be met not only by the Government according to its financial ability but also by the community and parents. This matter will be regulated more properly in order to assure more effective use and to prevent abuse of funds.

2.1 Program for Improving the Quality of Primary Education

The imbalance of education in the vertical structure is caused not only by the inadequate development of secondary education but also by the large number of failures at the primary education level. This situation creates disappointment among those concerned, is also a great loss in manpower, money and time spent.

Various policies will be adopted to solve this problem, among others, improving the quality of primary education through renewal of curriculum and teaching methods to suit them to the physical and social environment, increasing the quantity and quality of learning material, and the use of mass media, promoting closer cooperation between parents, teachers and the community, and other efforts to cut down the number of failing pupils.

Besides the above-mentioned efforts the improvement of the quality of teachers constitutes a very important problem.

It is expected that all of these efforts will increase the number of pupils being promoted annually by an average of

3 to 5 per cent so that the number of primary school pupils in 1973 will be increased to 31 per cent compared to the situation in 1968. The growth of the number of primary school students is as shown in following Table X-A-1.

Table X-A-1

PRIMARY SCHOOL POPULATION
1967 - 1973
(in thousands)

Year	Total	Percentage of age-group 7 - 12 years
1967	13,023	63
1968	13,544	64
1969	14,086	67
1973	17,748	80

In the primary schools practices of healthy living, basic sanitation, nutrition, farming, animal husbandry, handicrafts, and so on, will be taught adapted to the conditions and needs of their respective communities.

At the same time, efforts will be made to provide education for children between 7 and 12 years of age who miss schooling, at afternoon schools, in order that they master, at least, the "3 R's" (reading, writing and arithmatic) supplemented by vocational training to equip them for employment.

Primary school graduates who do not continue their study will be provided development classes to be established by the local government with help from the Central Government.

Those efforts will be started in 1969, and continued in the following years, gradually and regularly, with due regard to the availability of resources and the chances of their implementation.

2.2 Program for Increase of Vocational Education at General Secondary Schools

In general, secondary school vocational education will be carried out covering supplementary subjects such as agriculture, stock breeding, domestic science, basic bookkeeping, handicrafts, technical skills, and other special knowledge or training adapted to the situation and needs of each community. Considering the too frequent failure at this educational level, this program will help to prepare them to obtain a suitable means of living in the society.

Apart from this rehabilitation and limited expansion of secondary education, it is proposed to establish vocational training centers to be managed separately, which can be used by various secondary educational institutions. The vocational training centers will be equipped with a laboratory, workshop, and library each divided into certain units.

To meet the shortage of qualified teachers, upgrading and intensive in-service training will be conducted for the existing teachers, and in addition, highly skilled persons in the society and other agencies inside as well as outside the Department of Education and Culture. This last effort is to be carried out so as to overcome, at one and the same time, the problems of quantity and quality in the development of educational teaching staff.

2.3 Program for Improvement of Technical and Vocational Education

The program for the improvement of technical and vocational education, which is the central educational program in this Five-Year Development Plan, will be directed primarily to the rehabilitation of practical work facilities, laboratories, machinery and other equipment.

The rehabilitation of buildings will be carried out to the extent possible. These efforts will be launched first in regions urgently in need of, and most lagging behind in equipment.

Up to 1971/1972 agricultural subjects will be given priority, and from then until 1973/1974 other technical and vocational subjects will be stressed.

To accommodate primary school graduates, secondary schools will be expanded gradually in order to provide 35,000 new places for a total of 70,000 students.

Technical and vocational education will also be expanded with 45,000 places for 90,000 students (an increase of 77.5 per cent over the present situation).

It is estimated that by the end of the five-year period higher grade and or secondary technical/vocational schools will have been established in each province giving priority to subject-fields needed for development in the area concerned. In that way it is planned that the proportional expansion of secondary schools will be as shown in the Table X-A-2.

The expansion will depend largely on local condition. For this reason the participation of the community has to be taken into account and organized in order that the people will feel that the schools are their own and built for their interest. The problem of location and efficiency have to be considered together. Rightly implemented, the schools will not only be beneficial to students but also, and far more, to the communities, for the schools can function as vocational training centers in the real sense.

Table X-A-2

EXPANSION OF STATE SECONDARY SCHOOLS
1967 - 1973

Year	School			Ratio	
	General ("SMP")	Technical	Other Vocational	"SMP"	Techn./Voc.
1967	1,294	557	479	100	80
1973	1,394	807	562	100	98

The expansion of higher grade schools can be seen in Table X-A-3:

Table X-A-3

EXPANSION OF STATE HIGHER GRADE SCHOOLS
1967 - 1973

Year	School			Ratio	
	General ("SMA")	Technology ("STM")	Other Vocational	"SMA"	"STM"/Other Vocational
1967	397	89	245	100	84
1973	462	235	310	100	112

2.4 Program for Improvement of Teachers Education

The program for the improvement of teacher education in this Five-Year Development Plan emphasizes quality rather than quantity. Greater use of the capacity of existing teachers training institutions will meet the need for quality in the course of the next five years. In case of emergency, the shortage of primary school teachers can be overcome by utilizing surplus civil and armed forces personnel who will receive preparatory training enabling them to function as teachers.

The shortage of teachers of vocational, technical and exact science subjects is expected to be overcome by issuing statutory provisions on compulsory teaching.

However, emphasis will be laid on the improvement of the quality of existing teachers by providing guidance and counselling aimed at giving them better qualifications, and also at broadening their knowledge and their ability to handle new ideas in the field of education (reform of methods and techniques of education). For this reason, guidance and counselling will be given not only in the form of upgrading but also in refresher courses, training, workshops, etc.

Emergency teachers education will be used as little as possible, and on the contrary, efforts will be concentrated on improving the standard of such institutions as the Teachers Training School (P.G.A.) and the Institute for Education and Paedagogy (I.K.I.P.), leading, finally, to coordinated teachers education.

The ratio between the number of students and educational personnel such as teachers, technical staff (e.g. school superintendents, vocational counsellors, psychologists and education inspectors) and administrative staff can not be fixed in an absolute way. The general guideline to be followed continuously is to decrease the ratio of pupils to teachers for the sake of optimal efficiency. At the first stage, efforts will be made to reach a teacher-pupil ratio of 1:35 at the primary, 1:25 at the secondary and 1:15 at the higher level of education.

a. Education of Primary School Teachers

If the efficiency program for primary schools succeeds according to the Plan, the increase of primary school pupils from the year 1968 to the end of the Five-Year Development Plan is estimated to be 4,200,000 making a grand total of 17,748,000 in 1973. Based on a pupil-teacher ratio of 42:1 there will be 422,000 teachers needed.

The number of existing primary schools is 332,000. If reductions due to retirement, discharge, death or change of occupation are estimated at 4 per cent annually or 22,5 per cent during 5 years (equal to 74,600 teachers), the shortage of primary school teachers will be 164,600.

The output of existing teachers training institutions is 26,000 per year or 130,000 in five years. The remaining shortage of 35,000 teachers can be met by the addition of 12,500 places for 25,000 students in government SPG's, making greater use of existing public schools, employing a two-shift system at primary schools, and recalling those qualified to teach but presently working in other fields.

It is planned that in every regency at least one SPG will be established, beginning with those with the most urgent need. In this way, it is intended that every graduating teacher will be acquainted with his own area.

b. Education of Secondary School Teachers

The decrease in the number of secondary school teachers due to discharge, change of occupation, retirement, and death totals 4 per cent every year or 24 per cent in the period between 1967 and 1973. The number of teachers in 1967 was 61,700 so that in that period the number will decrease by 14,800. In the same period the number of students will increase making a total of 1,799,000 who need 71,160 teachers. This raises the total shortage through 1973, to 24,260.

To overcome this shortage, from 1969 on graduates with a bachelors degree from the IKIP, the output of which is at present around 3,000 persons a year which means 15,000 in the five-year period, will be employed. The remaining deficit of 9,260 will be filled with graduates of the Secondary Teachers Training School (PGSLP) which at the present time graduates 2,300 every year.

The existing PGSLP will gradually be integrated into I.K.I.P. in order to achieve simplification and efficiency in the education of secondary school teachers. This integration is expected to be completed before the end of this Five-Year Development Plan.

2.5 Development of Higher Education

The development of higher education will include the following activities:

Rehabilitation, particularly of the exact science faculties or sections: agriculture, medicine, pharcology, public health, technology, and educational sciences in line with development priorities. Rehabilitation will also cover non-exact science faculties which can support and facilitate development plan implementation. Feeder exact science faculties will receive equipment and laboratory facilities, libraries and visual aids according to need and available supply.

The rehabilitation of the exact science faculties and branches aiming for this quality improvement, will be conducted throughout the country. Rehabilitation of social science faculties and branches will include feeder faculties only. Exact science feeder faculties, for the most part, will have been equipped already by 1972.

Beside rehabilitation and improvement of facilities, the curriculum will be adapted to development needs. Scientific research institutions will be developed at universities, and utilized within the framework of rendering service to the community.

2.6 Community and Adult Education

The first problem to be tackled is the coordination of all community and adult education activities now being conducted by various agencies in order to facilitate the integration of programs already being carried out with other development programs, and to achieve more effectieve implementation.

Community and adult education forms an important part of rural development as a whole.

In this context activities will be directed toward village leaders in their respective fields (such as agriculture, crafts, handicrafts, etc.) and extended, through them, to the village people at large.

Schools which constitute the modernizing agencies in their areas, will function as centers for adult education in addition to fulfilling their primary function of providing formal education.

2.7 Program for Development of Education

The improvement of quality at all levels and in all forms of education is one of the most important parts of the Five-Year Development Plan.

The program for quality improvement, in turn, forms a part of the program for education which will be geared to development. Its activities include research into renewal of the educational system, teaching and training methods, curriculum improvement, upgrading of teaching personnel, and reviewing of texts of schoolbooks, visual aids and other teaching material. The education and training of administrative staff, inspectors, educationists and educational research personnel would also be included.

The preparation and implementation of this program for educational development thus requires extensive and continuous research and expansion efforts. To meet this need, an Educational Development Agency (Foundation) will be established which has the authority to coordinate other similar research foundations.

2.8 Development of Culture and Sports

The program for development of national culture will be directed toward three main targets:
First, rediscovery of cultural elements including archeology and museums as centers for research, and for channeling, implanting and developing a sense of culture.
Second, cultural development covering, among other things, development of art education and regional cultural activities,
Third, prevention of negative influence of foreign culture.
In addition, the maintenance of our ancient heritage as a tourist attraction will be improved. Further, along with the program to promote tourism, art centers -- "karawitan" conservatories -- will be established, and museums and temples at tourist centers rehabilitated.

The program for sports development aims at the improvement of sports achievements at schools and institutions of higher education, among civil servants and the armed forces as well as among the communities at large.

To support the program the education of sports teachers will be improved and expanded by utilizing the existing sports schools.

The schools are planned to produce graduates as follows:

Table X-A-4

PLANNED OUTPUT OF SPORTS ACADEMIES (STO)

Level	Year 1969	1970	1971	1972	1973
Bachelors	300	300	400	600	800
Full graduates	50	50	80	100	125

Bachelor degree holders of the STO will be employed as sports teachers at secondary schools, and full graduates at higher grade schools as well as higher education institutes.

Table X-A-5

PLANNED OUTPUT OF SPORTS HIGHSCHOOLS (SMOA)

S.M.O.A.	Year 1969	1970	1971	1972	1973
Number of graduates	1,500	1,500	2,000	4,000	6,000

In order to meet the need for primary school physical education teachers, efforts will be made to prepare a sports teaching staff for primary schools. The efforts will include: improvement of the curriculum of teachers training colleges, upgrading of primary school teachers in the field of sports and upgrading of sports instructors.

2.9 Institutional Education and Training

Educational activities in these fields will include education in the field of:

2.9.1 Agriculture

To improve the quality of agricultural infrastructure, promotional educational projects will be launched for the improvement of libraries and literature in the course of the five-year period.

At the same time educational activities will be conducted in the field of:

a. Agricultural Education and Guidance

In this first Five-Year Development Plan education is a vital element in our efforts to reach the targets set. Similarly, in the achievement of rice production targets, education plays an important role.

Education in the field of agriculture will be directed at groups who are not directly concerned with agriculture, groups serving the interests of farmers and the farm population itself.

Agricultural education in the past has not been given proper attention. This can be seen in the curriculum of primary schools, secondary and higher grade schools in which agricultural instruction is not included. This is a shortcoming considering the fact that more than 70 per cent of the Indonesian people depend on the agricultural sector for their living. As a consequence of this weakness in the curriculum, a lack of appreciation for agriculture in the Indonesian economy is deeply felt.

Therefore, in the coming five-years, the curriculum of those schools will gradually be changed so that students will receive agricultural instruction, at least to improve their appreciation and understanding of agricultural activities and the role of farmers in economic development.

For non-farm groups serving the interest of farmers, (guiding, planning and teaching staff) there is an educational system already although its level must be upgraded to meet expanding needs. The Five-Year Development Plan emphasizes the improvement in the quality of guidance, research, planning and education at the higher level.

Farmers groups will be provided with two forms of education, basic education and extension facilities.

Basic education aims at teaching farmers reading, writing and arithmatic while agricultural extension facilities will broaden their agricultural skill. These two forms of education will complement each other and both have as their objective the broadening of the outlook of farmers and their knowledge of existing alternatives, while making them aware of their freedom to choose the alternative most profitable.

"Bimas" is an agricultural extension method aimed at integrating the activities of agencies actively concerned with increasing paddy production. Although satisfactory results have been obtained through "Bimas" extension activities, these must still be intensified in order to reach the production targets set in the Five-Year Development Plan. The intensification of guiding activities depends on the quality and skill of implementors, their mobility and means at their disposal particularly in sub-districts.

The quality of agricultural technical personnel, which number about 4000 scattered throughout the country, needs to be improved; un-skilled personnel must be replaced by qualified ones; subject matter specialists need to be developed for regencies (kabupaten) with special problems.

As regards the supply of new staff to replace old members it can be furnished by graduates of State Senior Agricultural Highschools (S.P.M.A.) of which there are ten, with an output of 400 graduates a year, and of provincial and private Senior Agricultural Highschools, numbering 57 in 1967, with an expected output of 200. In the past, the obstacle encountered in implementation was mainly the lack of employment opportunities and funds in the provinces.

It is planned that in the next five years more than 40 per cent of the personnel in the sub-districts will be replaced by graduates of the Senior Agricultural Highschool, and the remaining 60 per cent will be upgraded to an equivalent level of training.

Extension services will be facilitated through increasing the mobility of workers by providing them with transportation for their extension service activities, by the allocation of sufficient budget, and by providing equipment such as audio-visual units.

In addition, the provision of minimum agricultural library units to sub-districts and regencies is regarded as an urgent program because of rapid technological advances, and the need of staff members to have up-to-date information and knowledge.

Manuals and publications will have a not inconsiderable role in the program for the expansion of these facilities and services. The need is felt to establish an agricultural information producing agency at the center and in the provinces in order to expedite the supply of material, and in greater quantity than now.

In addition, the before-mentioned use of the mass media which will still be limited in the near future, will be supplemented by more intensive and closer contacts with groups and individuals.

In this connection, the role of formal and informal local farm leaders is of great importance. They can function as effective liaison officers in spreading new ideas between the sub-district agricultural staff and farmers in their areas.

Apart from these efforts, in the coming five years, cooperation will be encouraged and organized between the various agencies for guidance, research, education and planning in order to reap mutual benefits, and better influence the achievement of production targets.

Closer cooperation has to be established between research and extension service agencies in order to enable the former to get feedback of information on problems faced by extension workers in the application of research findings in the field.

Through guidance and extension services farmers will be acquainted with new technology, new inputs with higher productivity, procedures of more efficient marketing of their crops, and economic aspects of product processing. This last, particularly, was more or less neglected in the past though it is to be admitted that guidance in economic aspects is far more difficult to provide than in technical aspects.

b. Apart from agricultural education and guidance, the Department of Agriculture will conduct educational activities in fields of its own care, forestry education, development of animal husbandry apparatus and technical staff, among others, by establishing Senior Forestry Highschools in Bogor, Atjeh, Makasar, Kupang and Semarang, and also fishery education.

2.9.2 Textiles and Cottage Industry

To overcome personnel problems in the field of industry, the Department of Industry will conduct educational activities as follows:

a. Academies such as the Textile Academy in Bandung which has been integrated into Higher Education for Textile Science, the Academy for Leather Technology in Jogjakarta, the Academy for Analytic Chemistry in Bogor, and the Academy for Business Management in Djakarta, all of which are expected to be able to meet the need for university level trained manpower.

b. To supply skilled manpower for industry, vocational schools and courses have been established teaching textile technology in Bandung, ceramics in Bandung, courses in "Batik" technology in Jogja, and Senior Highschools for Technology and for Industry in Jogja.

In the Five-Year Development Plan the following educational activities are included:

a. The implementation of education and upgrading for low- and medium-level supervisory personnel in the field of industry by:

* Intensification of the upgrading of existing personnel.
* Encouragement of enterprises to establish industrial courses on their own as well as cooperatively.
* Improvement and enlargement of ability to absorb the output of secondary-level industrial cadres education.

b. In the field of Cottage Industry:

* Establishment of cottage industry training and courses, in each province.
* Assisting the management of the Handicraft Industry Schools, within the framework of its cooperation with the Directorate of Vocational Education.

- The management and establishment of special Academies for Art and Crafts which might be combined with existing State universities.
- Sending of industrial cadres abroad, three fellows from each province annually.

2.9.3 Public Works and Electric Power

To prepare its apparatus, the Department of Public Works and Power will conduct educational activities to improve the quality of personnel, in the form of regular courses as well as upgrading and refresher courses carried out by agencies outside the Department.

Educational activities already carried out, are:

a. Regular schools or courses: Technical courses in Jogja and Surabaja, Technical Cadres Course (KUKAPUT) in Jogja and Medan, Technical Academy for Public Works and Power (ATPUT) in Bandung, Public Works and Power Staff and Management School (SESPUT).

b. Upgrading and Refresher courses: A Road Construction Course in Jogja, a Financial Administration Course, a Logistics Course, a Road Maintenance Course, an Irrigation Course, and Official Examinations.

c. Other activities such as lectures, and so on.

Activities planned in the Five-Year Development Plan are: (a) Regular courses such as SESPUT enrolling 200 - 300 students in five years, ATPUT 400 - 500 students and KUKATPUT 600 - 700 students; (b) Short courses producing 2,000 - 2,900 graduates of various kinds needed. The total target in five years is 3,200 - 4,400.

2.9.4 Communications

For the purpose of quality improvement and an adequate supply of special skilled manpower in the field of communications, the Department of Communications establishes educational institutions, at higher as well as secondary level, and courses.

a. For air communications at the higher level, there has been established the Indonesian Aviation Academy in Tjurug, Tangerang, and the Academy for Meteorology and Geophysics in Djakarta. There are also courses in the field of Meteorology and Geophysics, Climatology and Telegraphy.
b. As regards sea communications matters at the higher level, there has been established the Academy for Navigational Science in Djakarta. There are secondary educational facilities in Semarang and Makasar. There are courses on Navigational Science and Harbors.
c. In the field of land communications there is a school for railway technicians in Bandung, as well as courses for managers.
d. Concerning matters of postal and telecommunications, there is an Academy for Post and Telecommunications in Bandung, and courses for postal and clearing service staff.

2.9.5 Economy and Finance

The educational program in this field includes:

a. Finance

For the purpose of improving the quality of financial personnel, at the higher academic level, there are:

aa. Public Finance Higher Institute in Djakarta which, between 1961-1968 has produced more than 3,000 graduates.
ab. Tax Accounting Academies in Djakarta, Bandung, Semarang, Surabaja, Makasar, Palembang and Medan, each with an output of 20-74 graduates annually.

ac. Assistant Public Accountant Academies in Bandung, Djakarta, Semarang, Surabaja, Makasar, Medan, Palembang and Ambon which thus far have produced about 300 graduates.
ad. State Treasury Academies in Djakarta, Medan and Surabaja. There are courses on Taxation and Public Finance.

b. Trade

For improvement in the quality of trade personnel, at the higher level, there is a Departmental Academy in Djakarta and a Metrological Academy in Bandung. In addition, to improve the quality of skilled manpower there are courses Administration and Marketing, and upgrading courses for the staff of the Department and State Enterprises. Fellowships are given for study at foreign universities abroad as well as at home.

c. Cooperatives

Indonesia still lacks education in the field of cooperatives, in the society, in schools as well as in universities. It is the same with guidance, information, and publication services.

There is, up to now, no training center. Educational activities and extension services in the field of cooperatives as laid down in the Five-Year Development Plan, are:
ca. Establishment of training centers in Djakarta, Banda Atjeh, Mataram, Bandjarmasin and Makasar.
cb. Provision for training abroad.

2.9.6 Social Fields

Activities in these fields are:

a. Health

Health education is conducted by the Department of

Health.

The program covers the education of health personnel to be carried out through:

aa. Rehabilitation and development of schools and other educational facilities to increase output.

ab. Intensification of the education of para-medical personnel to meet needs arising out of the existing shortage as well as the expansion of planned health service activities.

ac. Establishment of Public Health Courses in order to fill the need for P.K.M. (Community Health Personnel Centers), by providing a training center in each province.

b. Information

Educational activities in the field of Information are carried out by the Department of Information and cover the education of information personnel, as follows:

ba. Training of the Information Department Staff, first and second level, lasting one year.

bb. Information Academy of 3 years' duration.

bc. Short term courses.

bd. Various training courses abroad concerning mass communication media for information inspectors.

Activities included in the Five-Year Development Plan are: upgrading of information personnel in the broadest sense through formal education (Information Academy, PPSDA, PPSD) as well as upgrading and application courses to be carried out extensively so that in the 5 year-period the number of those who have received upgrading or other education in various fields can be doubled, consisting of 20 per cent senior and 80 per cent intermediate personnel. Priority will be given to short-term courses in order to produce the needed manpower quickly.

c. Social Welfare

Educational activities in the field of social welfare will be carried out by the Department of Social Affairs. They are according to the Five-Year Development Plan:

ca. Education or training to improve the quality of social workers.

cb. Development of manpower through the upgrading of social leaders by means of short courses or training for government as well as private personnel.

cc. Expansion and development of STKS (the Social Welfare Higher Institute) in Bandung, the only one in existence so far, and an increase of teaching staff for KKSP, KKSM and STKS (Secondary and Higher Grade Schools and Higher Institute for Social Welfare).

cd. Social welfare information and guidance to be given to communities through the use of the mass media, publications, visits from house to house, etc.

d. Religion

Educational activities will be conducted by the Department of Religious Affairs covering:

da. Expansion of I.A.I.N. (State Islamic Religious Institute), and implementation of scientific activities (surveys, seminars, etc.).

db. Rehabilitation of P.G.A.N. (State Religious Teachers Education).

dc. Efforts to improve curriculum content and methods, in order to improve quality, form an important part of the Religious field in the Five-Year Development Plan.

e. Government Administration

The activities planned by this Department are of a technical operational nature. Administrative and management education is to be carried out by the Institute of Public

Administration.

In this context, for improving the quality of public servants the following educational activities will be carried out:

ea. Special training of manpower in those fields that have been given priority in the Five-Year Development Plan.
eb. Training of Treasurers.
ec. Training of Planners for the center and the provinces.
ed. Administrative Staff College for senior personnel.
ee. Administrative Development Research Center.
ef. Training of personnel administration staff.
eg. Training of regional administration staff.

More detailed explanations can be found in the sections dealing with education in the respective fields.

2.10 Program for Development of Research and Surveys

Scientific activities in Indonesia are conducted by:

a. Research institutions within the Departments which are mainly directed toward solving technical problems and supporting the implementation of the development tasks concerned.

b. Universities doing basic and applied research directed mainly along lines of interest to the scientific staff, and efforts to solve problems connected with meeting community needs.

c. Research institutions in non-Departmental agencies including LIPI (Indonesia Institute of Sciences), BATAN (National Atomic Emergy Commission), and LAN (Institute of Public Administration).

This field faces a shortage of technicians as well as of the necessary infrastructure such as a favorable political and economic climate, up-to-date science libraries, equipment and scientific materials, and sufficient funds.

In the framework of current development research activities emphasis is given to applied research, particularly of a quick-yielding nature, in the sectors of agriculture, textiles, natural resources, population, health, industry, and communications.

Similarly, the main targets of surveys within the framework of the present stage of development are:

a. Increase in agricultural production of food.
b. Development of industries supporting agriculture.
c. Intensification of foreign exchange-earning activities.
d. Increasing effectiveness and efficiency of communications.
e. Expansion of employment.
f. Creation of a way of life for the nation based on faith in God the Almighty, and having a noble mental attitude and character which can inspire the process of development.

B. MANPOWER

1. Situation and Problems

Indonesia, like other developing countries, still has the characteristics of a traditional economy; dependence on agriculture, low per capita income, inequal distribution of national income, low savings and investment.

The low economic progress and the many shortcomings to be overcome, makes it important that effective use be made of all available resources such as manpower, capital and raw materials.

Since the country gained its independence on August 17, 1945, the Government of Indonesia has decided that one of its responsibilities and duties is to provide employment to every citizen who is willing and able to work. This forms

Table X-A-6

FIVE-YEAR DEVELOPMENT PLAN BUDGET
EDUCATION AND CULTURE
1969/70 - 1973/74
(in thousands of Rupiah)

Field/Sector/Sub-Sector/Program	National Development Budget	
	1969/70	1969/70 - 1973/74
(1)	(2)	(3)
FIELD : SOCIAL		
Sector: EDUCATION AND CULTURE	10,538 x)	95,000
1. Sub-Sector: Education	5,813 x)	53,729
Program:		
a. Quality improvement of Primary Schools	360	3,348
b. Increase of vocational education in Secondary Schools	300	2,500
c. Improvement of technical and vocational education	2,454	21,373

(1)	(2)	(3)
d. Improvement of Teachers Education	239	2,621
e. Development of Higher Education	1,700	15,500
f. Expansion of Community and Adult Education	160	1,742
g. Development of Education	-	6,645
2. Sub-Sector: Culture	370	5,271
Program:		
a. Development of National Culture	279	4,305
b. Intensification of Sports activities	91	966
3. Sub-Sector: Institutional Education and Research	4,355	36,000
Program:		
a. Institutional Education/Training	3,200	26,164
b. Intensification of Research/Surveys	1,155	9,836

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x) Including Rp. 600,000,000 in project aid/technical assistance for the sector of Education and Culture the realization of Article 27 clause (2) of the 1945 Constitution, reading:

> "Every citizen is entitled to a job suitable to humanity".

In this context, one of the objectives of the Five-Year Development Plan is to expand job opportunities in order to decrease unemployment, and to absorb the increase in the labor force.

In the framework of the implementation of the Five-Year Development Plan, the basic manpower policy will be directed toward the provision of skilled manpower in sufficient quantity to keep pace with progress in economic activities and employment opportunities.

This policy brings about the necessity to develop and expand the skills of the majority of the existing manpower which is to be used effectively.

To facilitate the implementation of the policy, a manpower plan will be formulated as an integral part of the Development Plan. In that way, efforts to achieve the targets in the field of manpower will run paralell to similar efforts in other fields.

The development and utilization of manpower resources in the most suitable way will support increased production and improve national income distribution so that the target of broadening employment opportunities will not hamper the achievement of other targets.

According to estimates, the Indonesian population has increased rapidly in recent years. It is very unevenly distributed. Moreover, 85 per cent of the people are found in rural areas; consequently, the increase in the labor force and population takes place in rural areas where economic activities are limited to agriculture where opportunities have become limited also. On the other hand, areas outside Java still offer extensive opportunities in that field. It is estimated that the area cultivated outside Java and Madura covers only 10 per cent of the land available, so that there is still room to carry out agriculture on a large scale.

The larger part of the Indonesian labor force is occupied in economic sectors as follows :

	Population census	Socio-economic census
	1961	1964/1965
	%	%
Agriculture	71.9	70.4
Mining	0.3	0.3
Manufacturing (Industry)	5.7	4.8
Construction	1.0	1.8
Gas and Water	0.1	0.1
Trade, Banking and Insurance	6.7	7.8
Transportation/Communications	2.1	2.1
Services incl. government civil service	9.5	12.2
Other sectors	1.5	0.8

Quantitatively, education in Indonesia since independence, has progressed rapidly at all levels.

Total figures of schools and students, primary and secondary schools and universities, show clearly that secondary education in Indonesia is inclined heavily toward general education while the number of university students studying social science is larger.

Due to this unbalanced educational structure, at the current stage of development, critical shortages in skilled manpower are deeply felt at the low and middle level as well as at the high level which makes it necessary for government Departments as well as large enterprises to establish training courses and service academics to meet their own needs.

Coordination and adjustments of these training programs with the situation and needs of the community is to be carried out by making the broadest possible use of all facilities offered by training centers in Departments as well as enterprises.

Labor relations in the pre-Gestapu/PKI (Indonesian Communist Party abortive coup) period, were very bad, because of the SOBSI/PKI role which dominated all labor activities. The conflicts between workers and enterprises created an atmosphere of mutual suspicion and enmity. The one or the other hampered any increase in production. To ensure efficiency as well as raise production, efforts will be made to develop healthy labor relations.

2. Problems

The population is increasing more rapidly than the economy is growing and this situation hampers the capital investment which could create employment opportunities in the various economic activities which would be able to absorb the rapidly increasing labor force.

Unequal distribution of population and labor force brings about over-population in some areas and a labor surplus in various sectors resulting in under employment, particularly in the rural areas of Java. At the same time, in regions outside Java the shortage of manpower, from the unskilled up to the highly skilled level, is deeply felt.

On account of the limited absorption capacity of the available cultivated land, much of the surplus labor force flows into the big towns in Java, mainly to Djakarta. This causes a population increase in towns which cannot offer jobs so that the underemployment in rural areas extends to urban areas where it becomes full unemployment and consequently enlarges the number of the jobless in towns.

The appointment of civil servants and state enterprises personnel, in the old regime, was based on political considerations. This resulted in over-staffing in several agencies, particularly at the lower levels which, to a very great extent, influenced the efficiency of government and state enterprises personnel.

3. Policy and Measures

Policy in the field of manpower forms an integral part of the entire process of the Five-Year Development Plan. Therefore, the effects on the employment situation of all activities encouraged by the Government, both in the public and in the private sectors, will be watched continuously. Various measures and apparatus result from efforts to implement policies which, in the field of manpower in particular, deal with wages, employment services; creation of employment opportunities, labor training, and so on.

To support implementataion of the Five-Year Development Plan, manpower planning will be mainly directed toward overcoming the shortage of trained and highly skilled manpower in order to ensure the implementation of projects and development policies, and to create maximum employment opportunities, which can prevent worsening of the employment situation, and if possible improve it.

From another point of view, unemployment and underemployment can become a critical factor in development efforts. In this context, the creation of jobs is to be given priority in spite of the fact that it entails the necessity to adjust some targets, e.g. emphasizing labor-intensive projects and other emergency activities.

Employment targets can not be separated from other national development targets. This means that the supply of manpower with the required skills, and the creation of employment opportunities must be directed to priority sectors, namely agriculture, agriculture-supporting industry, foreign exchange earners (communications, tourism, plantations, forestry), the textile industry, infrastructure, and small industry.

The efforts to reach these targets will give priority to: (1) provision of training facilities to overcome obstacles caused by the shortage of skilled manpower, (2) creation of jobs in areas suffering from over-population and underemployment, (3) prevention of increase in the number of unemployment youth, (4) improvement of labor relations, (5) improving the quality of organization and management, (6) more effective utilization of civil servants and reorganization of government apparatus, and (7) collection of manpower data.

In facing the problem of the rapid increase of the population and labor force, the formulation of a family planning program constitutes a long-range policy the influence of which can only be felt after 10 - 15 years' time.

Family planning can decrease the number of dependants, particularly in densely populated areas. This creates greater ability to save and to form capital and make investments which will broaden employment opportunities; and funds now spent on dependants can be used for the maintenance of the health and welfare of a strong and active working labor force.

In the face of the imbalance in population distribution with overpopulation and labor surplus in Java and Madura, the transmigration program planned and associated closely with development activities can, in the long run, contribute to decreasing the population in Java.

The effort to utilize manpower resources better and more fully requires intensive use of capital and other productive inputs. This can be achieved by the use of such things as high quality seeds, fertilizer, etc., and by a more efficient use of capital equipment e.g. by increasing the hours worked per day. These measures can be applied in the field of agriculture and in other sectors such as construction, transport, etc. The introduction of two or three shifts can double employment opportunities as well as output. It can also make fuller use of managerial, supervisory and technical skills which are very limited in Indonesia.

The policy of adapting the labor supply to the need for economic development is to be directed toward reform of the education system, from primary to university level. Curriculum revision will be carried out so as to provide practical instruction enabling students to put that which has been learned into practice.

Within a short time, and in order to facilitate the implementation of development programs, full attention will be given to labor training, upgrading, refreshing, or advanced courses. Unemployed persons should be given an opportunity to obtain skills for which there is a demand.

Long-term measures are geared to :

(1) Formulations of regulations to control and limit the establishment of general secondary schools and social science faculties, and to increase the number of vocational schools. Encouraging the development of exact science faculties.

(2) Laying the foundation for renewal of the education system, and improvement of curriculum geared to practical knowledge in accordance with community needs by providing facilities such as laboratory equipment for practice purposes and other materials required for practical teaching.

(3) Broadening the education of teachers and universities, and raising the level of their ability.

(4) Laying greater emphasis on agriculture, technology, economics, medical and educational sciences in the universities.

In the short run, labor training within the Department of Manpower and other courses managed by government as well as private agencies will be expanded and intensified.

In order, at least, to retain the present level of employment or raise it slightly, short-term measures must be taken based on a study of all existing possibilities so as to create employment opportunities, as follows: (1) More intensive use of land and manpower in the field of agriculture as well as industry, making full use of existing capacity by increasing the number of shifts, etc. (2) Launching new activities or expansion of economic sectors by emphasizing labor-intensive methods. In rural areas, recultivation of land in Java or opening up of new areas outside Java, expansion of fishing and forestry, small industries, handicrafts, etc. In urban areas: establishment of new industries with foreign capital, employing as many workers as possible; aid to medium- and small-scale industry by extending credits, technical assistance, etc., such as automobile maintenance shop, repair shops, etc. (3) Emergency and other activities to be carried out labor-intensively; rural labor-intensive projects like area extension, irrigation construction, road-building, dams, etc. Labor-intensive projects in urban areas: construction of roads, houses, etc. (4) Creation of favorable conditions to accelerate transmigration and movement of manpower outside Java linked with development efforts by improvement of inter-regional communications and transportation; expansion of facilities to take care of people waiting for departure and preparation of facilities (housing, etc.) in the areas to which they are being moved. (5) Employment opportunities can also be increased by intensified labor training geared to development needs by the maximum use of in-service training. (6) Utilization of civil servants by providing work for surplus personnel through upgrading and re-assignment in sectors or regions suffering from a manpower shortage.

4. Care and Protection of Manpower, Development of Labor Relations

In this field, efforts must be made to direct labor relations in a manner that will assure labor security and peace. For this purpose, the following will be carried out:

- to make labor unions and management partners in production, responsible for the implementation and success of the Five-Year Development Plan.
- provision of education and upgrading for labor union leaders with the objective of making labor unions a social force responsible for national economic development.
- directing the growth of labor unions toward the formation of a cooperative body.
- expansion or establishment of upgrading courses for personnel managers so that they will be brought to realize
- the importance of healthy labor relations.
- formation of tripartite and bipartite agencies.
- conducting research on those matters which usually give rice to labor conflicts.
- regulation of conflicts by statutory means to decrease conflicts.

5. Wages and Social Security

Realizing fully that improvement of wages and social security must lead to, and be accompanied by an increase in productivity, the following measures need to be taken :

- regulating the minimum wage so that it is sufficient to meet minimal physical needs in accordance with real consumption patterns and to fulfill minimum health and welfare requirements.
- introduction of democratization of wages in the sense of creating a just equilibrium, nationally in industries as well as in enterprises, between minimum and maximum wages without neglecting the need for adequate incentives for certain groups.
- creation of uniformity of system as well as quantity in each industrial sector.
- improvement of social welfare if manpower funds permit.
- conducting research in social security, which will lead to the introduction of social security regulations.

CHAPTER XI

HEALTH AND FAMILY PLANNING

A. HEALTH

Introduction

One of the aims of development is to raise the level of people's health. Thus improving public health is an end in itself. At the same time, improving the health of the population serves, in a direct way, to raise the level of its productive work which, in turn, quickens the process of development. For this reason, improving public health is a form of development investment -- an investment in human beings that is complementary to capital investment.

1. Situation and Problems

Activities in the field of public health according to a new concept were begun after 1950, and were progressing step by step, but in the long run this achievement took a downward turn because of growing inflation. Deterioration could be observed everywhere, especially in hospital conditions and in programs for the eradication of contagious diseases. Now the health sector has begun to move forward again after suffering a serious decline.

The unsatisfactory state of public health and much ignorance of hygiene are characteristic not only of rural areas, but also of cities. Such conditions have lowered the productivity of the people, which holds back implementation of the development program.

1.1 Contagious diseases

a. Malaria : At the end of 1963, 64.5 million people in Java, Bali and Lampung were protected against malaria attacks, as a result of DDT-spraying of the people's houses. Later the situation deteriorated because of the lack of funds and because of the stopping of foreign assistance in the form of DDT and spraying equipment.

From surveys that have been made it is clear that the number of malaria patients in Java, Bali, Lampung increases every year; even in malaria eradicated areas, malaria has been found again.

b. Smallpox : The most urgent problem is caused by the falling off of routine vaccinations, with the result that there is a low level of immunity to smallpox among the people, especially among babies and children below 15 years. In the last 3-5 years there have been thousands of smallpox cases in several regions in Indonesia, especially in the recently eradicated smallpox areas. In 1967, 12,700 cases were reported; in fact, the actual number of smallpox patients was far greater, perhaps five times as many. Up to now smallpox has not yet been eradicated in Djakarta, the capital city.

c. Tuberculosis : four per cent of the total population is infected by tuberculosis. Most of these are from the productive age (15 - 45 years).

d. Cholera : Though at present cholera is rarely found, this disease is still potentially very dangerous. An epidemic could break out at any moment, due to bad hygienic conditions. Areas declared to be endemic for cholera are Java, Bali, Lombok, Timor, Sumbawa, Sumatra, South Sulawesi, the Moluccas and West Irian.

e. Plague : Thanks to DDT spraying since 1952 this disease could be said to have been eradicated by 1963, but due to several causes in 1968 there was an epidemic in the area of Bojolali.

f. Framboesia (the Yaws) : TCPS (Tretatomatosis Control Program Simplified) efforts at the end of 1968 had covered 2851 districts, 1466 in Java and 1385 in other islands.

1.2 Hygiene and Sanitation

Though regulations no. 11/1962 and no, 2/1966 which dealt with these areas were issued, the execution of them was still far from satisfactory, in comparison to other efforts in public health. Poor social-economic conditions and a shortage of health personnel in number as well as in quality are the main hindrance to carrying out the above regulations.

1.3 Health Facilities

Public health facilities such as hospitals, clinics, maternity centers, laboratories, sanatoriums, pharmacies, and others are still in poor condition.

The expansion of hospitals cannot keep pace with the increasing population; for years hospital equipment and medical instruments, especially X-ray instruments which must be renewed and repaired, have been badly maintained. The proportion of hospital beds to the size of the population is 8 beds per 10,000 people. Hospitals in general, with the exception of Central Public Hospitals in big cities, lack medicines and medical equipment, as well as being in poor condition. For this reason regional hospitals can only utilize a quarter of their capacity.

Between 1959 - 1965 the number of clinics increased from 3,945 to 5,671, but most of them still lacked medicines. The policlinics for Mother and Child Welfare (BKIA) in the years 1950 - 1967 increased by 300 - 400 a year. The number of visiting expectant mothers and children fell off greatly in the years when milk powder and medicines from UNICEF were stopped.

Health equipment is still far from satisfactory. This is mainly due to dependence on imported supplies. Even laboratories lack instruments and personnel, so they cannot operate properly.

1.4 Medical and Paramedical Personnel

The present condition is still not as it should be, because of the lack of medical as well as paramedical personnel, compared to the size of the population.

The numbers of doctors in 1968 has been estimated at 5,000 for a population of 115 million, which means one doctor for 23,000 persons (in 1954 the proportion was 1 to 60,000). Since 1968, 600 doctors have been added, 150 dentists and 150 chemists. Most of the doctors are located in big cities, while in rural areas there is only one physician available for 100 to 120 thousand people; in cities on the other hand, one doctor is available for 5-6 thousand people.

The lack of paramedical personnel is badly felt. The doctor's efficiency cannot be improved without the assistance of large numbers of trained paramedical personnel.

The limited capability of paramedical training and the limited number of students entering the training as a result of increased boarding costs, causes a decrease in the supply of paramedical personnel. The ratio between doctors and the population becomes even worse with the fact that many midwives and nurses have left their jobs because of economic pressures.

Trained medical and paramedical personnel cannot be placed in regions outside Java because no travel funds are available.

1.5 Pharmaceuticals

The pharmaceutical supply is for the most part imported, only about 10 per cent of it is produced locally. Domestic production of medicines using imported and domestic raw materials is beginning to develop. This requires strict control over production, to meet medical requirements. The production of domestic medicines is still in its infancy.

1.6 Transportation

Transportation facilities such as ambulances are very scarce. The state of public transportation also affects the ability of the public to make use of the nursing and medical treatment facilities which it so urgently needs.

2. Policy and Measures

The above problems and condition are used as a basis for planning and policy in the health program, the main purpose of which is to promote efficiency and to provide an expanded health service.

In the framework of this purpose, the integration of curative and preventive efforts should be achieved through functional integration among public health organization units using a team approach to overcoming health problems. This is an important principle, especially in the implementation of the public health concept, which is necessary to obtain maximum efficiency with relatively limited health facilities. Rehabilitation of facilities which are available at present should be emphasized, while new developments should be undertaken only in areas which are relatively backward compared to other areas.

In accordance with the policy which gives priority to food production and foreign exchange earnings sectors, the public health of the producing areas should be given special attention. The people's ability to work will improve rapidly if they are better informed and fully aware of the significance of health care within the framework of mental, physical and social welfare.

2.1 Public Health Instruction

Health instruction should, in fact, involved individual daily habits, as well as instructions given in courses, in newspaper articles, through radio broadcasts and television programs, and in other kinds of demonstration.

The targets are :

a. Health programs in schools

The target will be children between 6-15 years of age. Health lessons as a subject should be taught in classrooms, the children's cleanliness of body, especially of hands and fingers should be inspected, a healthy atmosphere should be created, while a clean water supply, a proper lavatory, and health services in schools such as light medical treatment, vaccinations, etc., should be provided.

Intensification of the existing School Health Program and expanding it to elementary schools in 153 towns and regencies which would take in 36 thousand schools with 8,3 million pupils, are the planned activities.

Training for field workers in Djakarta, West Java, Central Java, Jogjakarta, East Java, Bali, Lampung, West Sumatra, South Sulawesi, South Kalimantan, West Kalimantan, and instructions or courses for teachers should be carried out.

b. Hygiene and sanitation

This program includes pure water supply and a sewage system, hygienic control over the selling of food and the elimination of insects and animals which spread contagious diseases. The program will be as follows:

- supply of drinking water: establishment of hygienic wells, manufacturing of simple water filters, utilization of garbage and the conversion of sewage.
- control and channeling of the supply of drinking water, protection of wells and other pure water sources, especially in villages and in areas where drinking water is scarce, and also in regions where many cases of gastric disorders are to be found,(such as Lampung, East Nusa Tenggara, Bali, North Sumatra, South Sumatra).

c. Guidance in nutrition

This program will cover both instruction in nutrition and the supplying of nutritional requirements of the daily diet according to local needs (Applied Nutrition Program). Information activities which are integrated with the Institution for Mother and Child Welfare are directed toward the prevention of malnutrition of nursing and expectant mothers, to prevent vitamin-A deficient babies and children. Nutrition guidance will be conducted through home visits and other activities which will reach the families directly. In schools it should be carried out as a subject, and courses should be given in nutrition and food technology.

d. Public participation in other activities, such as the eradication of contagious diseases

Several steps should be taken to promote popular participation in public health programs. It comprises an overall smallpox and BCG vaccination program including new born babies, the elimination of insects and animals carrying contagious diseases, the supply of pure drinking water to the houses, and the participation of civil servants, teachers and public organizations in the spreading of information on the prevention and eradication of contagious diseases, by cooperating in the implementation of the above activities.

2.2 Improvement of Health Infrastructure

a. Public Health Center

The Public Health Center is a unit which supplies services in the following fields:

1. Curative (medical check up and medical treatment)
2. Preventive (prevention of disease, promoting public health and health education)
3. Environmental sanitation.

Formerly, curative efforts were carried out by clinics and hospitals, and preventive efforts by the Centers for Mother and Child Welfare (BKIA), for mothers, infants and children. Envoronmental sanitation was looked after by personnel of the Public Health Service Staff in the districts and sub-districts.

Up to now the clinics and mother and child health centers (BKIA) have carried out on their activities independently and even the buildings are separated.

In the coming years the Public Health Centers will be made more functional so that even where the buildings are still separate, there will be an integration in their activities. As new Public Health Centers are established, all activities will take place in one building.

There are three kinds of Public Health Centers:

1. Promoting Public Health Centers
2. Sub-district Public Health Centers
3. Village Public Health Centers.

The differences lie in the personnel performing the activities. In the Promoting Public Health Centers there will be a doctor, a public health nurse, several midwives and nurses and an environmental health official and some assistants. In Sub-district Public Health Centers the personnel will include a public health nurse as chief, one or two midwives, and a nurse with several assistants; in the Village Public Health Centers two health supervisors and one or two assistants are available.

The service rendered by each or the three types of Public Health Center is different, because of the personnel available; thus, a more complete service is given in the Promoting Public Health Centers than in Sub-district and Village Public Health Centers. The Promoting Public Health Centers should give guidance to 3-5 Sub-district Public Health Centers, which should do the same to 3-5 Village Public Health Centers.

At the end of the Five-Year Plan, there should be 525 Promoting Public Health Centers, 2,633 Sub-district Public Health Centers and 1,058 Village Public Health Centers. In 1969-1970 the numbers anticipated are, respectively, 172, 345, and 710.

About 500 doctors, 500 public health nurses, 3,000 midwives, 3,000 nurses and 10,000 health assistants are needed for the establishment of the three types of Public Health Centers. This should be the responsibility of the provinces and districts (regencies). In addition, it is important that the people themselves should actively participate in the Public Health Center Program, by establishing Village Public Health Centers through their own efforts.

b. Clinics and Centers for Mother and Child Welfare

Centers for Mother and Child Welfare in the Five-Year Development Plan will be developed as part of the preparation of Public Health Centers.

Preparations will be made for supplying the existing clinics with public health personnel, and for opening new clinics in areas where no clinics are available. The target will be to increase the number of clinics from 6,500 in 1968/69 to 8,000 in 1973/74.

The activities of the Centers for Mother and Child Welfare included in the plan are:

* to improve health education for mothers, mainly concerning nutrition and health care, through home visits;
* to intensify immunisation and vaccination to eliminate contagious diseases;
* to intensify health education for midwives;
* to develop health personnel by upgrading or in-service training;
* to assist family planning by integrating it into other public health activities;
* to assist childbirth;
* to promote .the health of children under five years.

There should be 7,500 Mother and Child Welfare Centers in all of Indonesia in 1973, an increase of 2,200 over previous years.

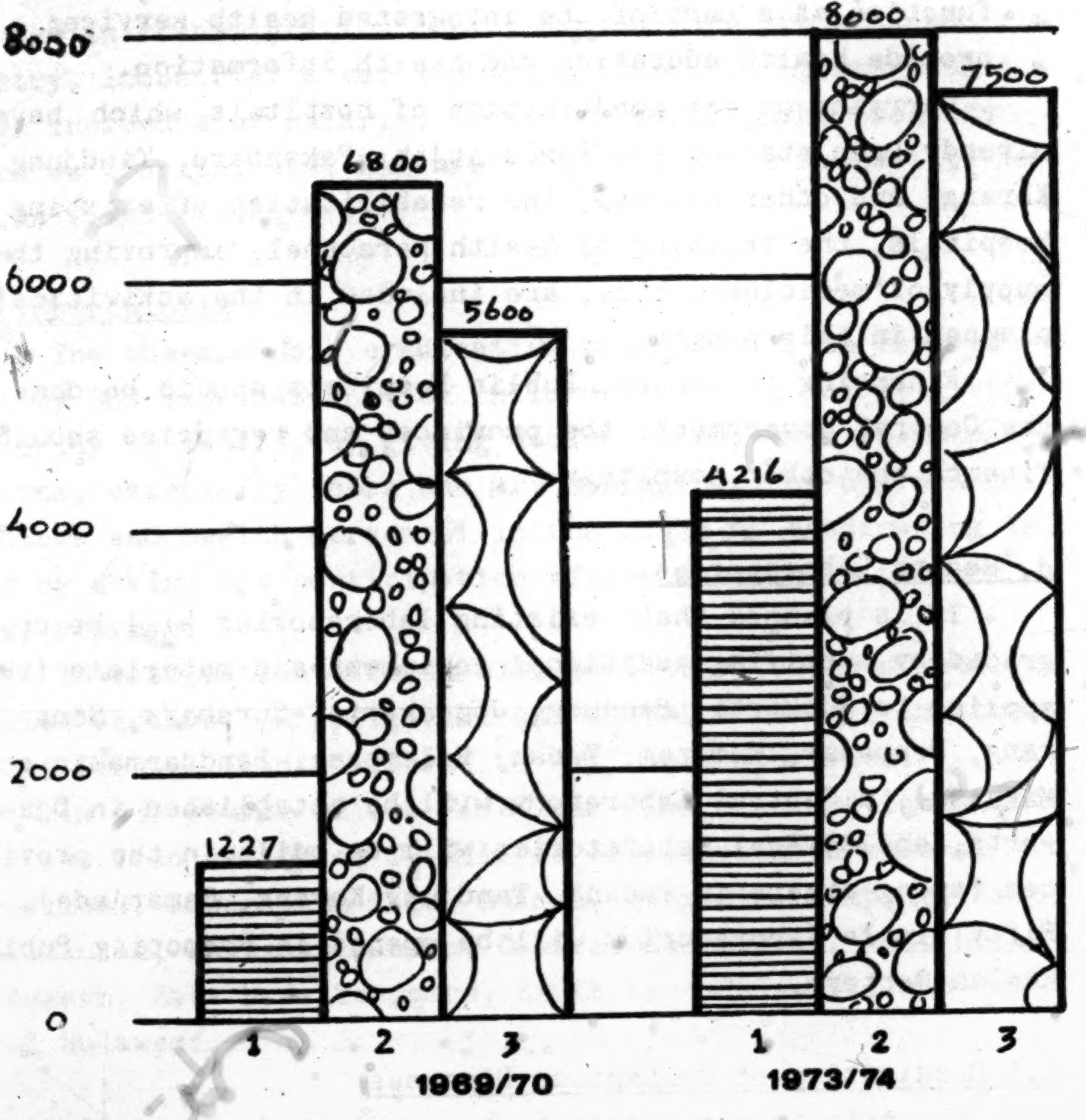
Table XI-A-1

INCREASE IN THE NUMBER OF CLINICS AND CENTERS FOR MOTHER AND CHILD WELFARE

1968/69 - 1973/74

Year	Clinics	Mother & Child Welfare Centers
1968/69	6,500	5,300
1969/70	6,800	5,600
1973/74	8,000	7,500

IMPROVEMENT OF HEALTH INFRASTRUCTURE 1969/70 - 1973/74



1: PHC (PUBLIC HEALTH CENTER).
2: CLINICS.
3: MOTHER AND CHILD WELFARE CLINICS.

c. Hospitals

The hospital's functions are as follows :

- * treatment, nursing and rehabilitation of patients;
- * training of medical and paramedical students;
- * carry out research for the improvement of medical science, nursing and nutrition;
- * function as a part of the integrated health service;
- * provide health education and health information.

Carrying on the construction of hospitals which have already been started (in Banda Atjeh, Pakanbaru, Tandjung Karang, and other places), the rehabilitation of existing hospitals, the training of health personnel, improving the supply of medicines, etc., are included in the activities planned in this program.

Financing of Central Public Hospitals should be done by the Central Government, the provinces and regencies should finance the other hospitals.

d. Health Laboratories

It is planned that existing laboratories will be upgraded by supplying additional equipment and materials (this applies to Djakarta, Bandung, Jogjakarta, Surabaja, Semarang, Denpasar, Mataram, Medan, Palembang, Bandjarmasin and Makasar), a Central Laboratory will be established in Djakarta, and several laboratories will be built in the provinces (among others in Padang, Tandjung Karang, Samarinda). Fifty simple laboratories will be opened in Promoting Public Health Centers.

2.3 Eradication of Contagious Diseases

The principle diseases to be eradicated are : malaria, smallpox, TB, framboesia, syphilis, leprosy, plague and cholera.

a. Malaria

Priority should go to consolidating the gains already achieved in Java and Bali. Future activities should keep pace with the results of surveillance in both islands, which have been divided into three regions for this purpose.

In areas outside Java and Bali efforts will be concentrated in transmigration areas, agriculture projects and forestry, industrial areas and mines, important ports with a high incidence of malaria, and other development projects such as tourism. West Kalimantan will also be subject to malaria eradication.

b. Tuberculosis

The tuberculosis eradication program will be carried out by BCG vaccinations for children under 16 years, giving priority to babies, by giving medical treatments to TB patients, especially those who are contagious, by upgrading doctors and health personnel in the field of eradicating TB, and by asking the participation of the society to perform this program.

TB eradication efforts will be integrated into Public Health Centers, in provincial and district centers Institutions for the Eradication of TB will be established.

In the course of the Five-Year Plan, 11 Institutions for the Eradication of TB will be established in several provinces, among them Riau, Djambi, Bengkulu, Lampung, East Kalimantan, West Kalimantan, Central Kalimantan, West Nusa Tenggara, East Nusa Tenggara, South East Sulawesi, and Central Sulawesi.

c. Smallpox

Vaccination was again intensified, in 1968, in Java and Bali with the assistance of WHO. To reach the 1974 target, by which time smallpox should be eradicated, several activities should be undertaken : primary vaccination to cover the backlog caused by the falling off of routine vaccination in the past few years, vaccination for babies, routine vaccination every 3 years, improvement of the surveillance system, a-simultaneous and rapid vaccination of the population when a smallpox epidemic breaks out, and training and adequate supply of vaccinators.

d. Framboesia

The eradication of framboesia is carried out with the assistance of UNICEF. This should be done in two phases, the phase of eradication and the phase of consolidation, concentrated in the regions of Lampung and South Sumatra.

e. Syphilis

Certain groups in the population should have a blood check to assist in the eradication of syphilis, and prostitutes should receive injections.

f. Leprosy

Extensive eradication will be attempted in Atjeh, South Kalimantan, Central and East Kalimantan, West Sumatra, North Sulawesi, East Nusa Tenggara, West Nusa Tenggara and the Moluccas, Riau and Djambi. By 1973/74 all provinces should have carried out this eradication systematically.

g. Plague

Surveillance should be continued by observation of mice and mice fleas which spread plague, especially in the districts of Temanggung, Wonosobo, Magelang, Bojolali and Sleman. In addition to education of the people, ecologic studies should be continued in Bojolali. Isolation and medical treatment, DDT spraying and vaccinations should be carried out when an epidemic of plague breaks out.

h. Cholera

Prevention of cholera should be carried out by, above all, supplying ample clean drinking water for the people, establishing laboratories in cholera endemic regions, isolating cholera patients, and sending assistance teams into regions where a cholera epidemic has broken out.

i. Quarantine

Quarantine is meant to be a means of preventing contagious diseases from entering or leaving Indonesia, and from moving into or out of other regions or islands in Indonesia.

For this purpose there should be a quarantine control of incoming ships and planes or other transportation, and HCN treatment of ships to eliminate mice, fleas, and insects they may be carrying.

Also on land the supply of drinking water must be protected, food and environmental sanitation should be controlled, while carriers of infectious diseases (fleas, mice and mosquitos) must be eliminated.

In the course of the Five-Year Plan, improvements will be made in the following places: Palembang, Surabaja, Tuban and the quarantine hospital in Tandjung Priok, Bitung, Belawan, Pandjang, Makasar, Mandai, Tjirebon, Talang Betutu, Dumai, Semarang, Polonia, Samarinda, Ambon, Pontianak, Bandjarmasin, Pakanbaru, Balikpapan, Manado and Padang.

2.4 Rehabilitation and Improvement of Health

a. Improvement in Nutrition

Nutritional improvement is directed toward improving the people's diet and increasing the nutritional value of selected foods.

Efforts to improve nutrition will concentrate on special nutrition problems like calorie-protein-malnutrition, nutrition problems of institutions like hospitals and boarding houses, nutrition problems in the vulnerable groups, and nutrition problems created by social and economic conditions, nutrition and food regulation, and a standardization of grades in nutrition.

To supply the personnel needed to carry out these efforts, several grades of nutritionists should be trained.

b. Mental Health

The most important step in the improvement of mental health is the integration of this effort into the public Health Centers. In addition, recovered patients should be rehabilitated and relocated in the society, medical treatment should be given those who have symptoms of mental illness, a sufficient number of mental health personnel must be supplied, and mental hospitals must be improved by making alterations in the system and types.

c. Dental Health

In the field of dental health, the steps to be taken are: the improvement, maintenance, prevention, and rehabilitation of dental health to promote the general health.

In the Five-Year Plan, dental care will be aimed at: elementary school pupils, expectant mothers, secondary school pupils, vocational school pupils, chronic patients, elderly people, mental and physical invalids, and other groups. Eighty dental clinics will be rehabilitated and fifty new ones opened, and dental and mouth research will be intensified.

d. Eye Health

Activities in eye health will cover the prevention of blindness and infectious eye diseases. This will be done by opening eye clinics in provinces especially in Djambi, South Kalimantan, West Nusa Tenggara, Jogjakarta, and locating an oculist in every provincial capital and major city providing facilities for medical treatment of eye patients, training of nurses through courses in eye treatment in provincial and district public hospitals.

Rehabilitation and improvement of hospitals for eye treatment includes expansion of the hospitals in Bendungan and Semarang, with a capacity of 100 beds, and supplying a complete set of instruments to the eye hospitals of Tjitjendo and Bandung. Preparations should be made for the establishment of eye hospitals in Tandjung Karang and Makasar, and for the expansion of those in Palembang and Tondano (North Sulawesi). Blindness caused by lack of vitamin A should be prevented by the use of red palm oil.

2.5 Surveys and Research

Activities to be carried out in this field are: the establishment of a foundation for basic research in the field of health to eradicate diseases and to promote public health, the planning of a national program based on reliable statistics and objective values, the continuation of efforts to develop efficient and effective methods in the program to eradicate infectious diseases and other public health activities.

A National Health Research Institute should be established in 1969, with the responsibility of conducting applied research and surveys essential for the National Health Program, of guiding and developing health research, of coordinating all applied research activities, and of evaluating the results for the health service. Research and survey projects should be carried out on the eradication of contagious diseases, and on the conduct of nutritional and operational studies for integrated health services.

In the course of the Five-Year Plan period, research and surveys should be continued to give an objective evaluation of the implementation of the Five-Year Plan in the public health sector, and seminars should be conducted on the results of research projects.

2.6 Training of Health Personnel

The training of health personnel includes rehabilitation and improvement of existing schools and facilities so as to increase the number of medical and paramedical personnel to fill the gap that is formed by the expansion and improvement in the health service program as field and inservice training centers are established.

In the program to supply the Public Health Centers with the needed personnel, a Training Center will be opened in each province to give orientation courses in the field of public health.

The above activities are designed to develop additional health personnel in the course of the Five-Year Plan period as shown in Table XI-A-2.

2.7 Medicines and Medical Equipment

In this field, domestic production of medicines will be increased as well as the import of foreign medicines. Efforts will be made to export pharmaceutical goods, elementary research will be conducted on indigenous Indonesian medicines, and on the improvement of drug controls applying to new medicines.

For that purpose, rehabilitation and improvement of me-

Table XI-A-2

INCREASE OF HEALTH PERSONNEL
1969/70 - 1973/74

Personnel	Total
1. Health Inspector	495
2. Nurse (semi academic training)	653
3. Nurse/Midwife/Public health nurse	594
4. Nutritionist	315
5. Sanitation officer	882
6. Nurse's Assistant	8,592
7. Midwives	4,212
8. Nutritionist (assistant)	405
9. Roentgen (X ray) assistant	154
10. Assistant analyst	432
11. Assistant pharmacist	2,430
12. Assistant Nutritionist	279
13. Statistical Assistant	293
14. Assistant Health Personnel	25,145

dicine production capacity, especially joint production with private or foreign investment, will be conducted; there will be a standardization and normalization of government supplies by improving the import system so as to provide an ample supply of medicine for the eradication of common disease. The volume of private imports will be increased and permits will be issued to pharmaceutical firms with a commitment to import prepared medicines, raw materials and medical equipment. The National Pharmaceutic Institute will be rehabilitated as a center for research and drug-control in the provinces, especially where pharmaceutical production and trade have developed.

With respect to the export of pharmaceutical materials, the Government should regulate the quality as well as the quantity of domestic pharmaceutical ingredients.

Medicines should be equally distributed to the people. New medicines which are to have wide popular distribution should be analyzed in the laboratories which are planned to be opened.

B. FAMILY PLANNING

The condition of the health and welfare of mothers, children and families in Indonesia has not yet reached the proper level, due to several factors, of which one is the size of the family. A small family will be able to have better living conditions, sufficient clothing, proper education and health care, for mothers as well as for children. Family planning guards the health and well being of mothers, and makes it possible for them to extend proper health care to their children.

The rapid growth of the population is another problem. As a consequence of proper health care, the death rate decreases while the birth rate remains high, which results in a rapid growth of population. Such has been the condition since 1950. In the years ahead the number of marriagable girls will increase, consequently there will be more marriages and more births. An increase in the population puts increased pressure on the supply of food, employment, education facilities, etc.

It is with these two problems in mind that the program of family planning has been composed.

1. Condition and Problems

The family planning association now has 25 branches. A variety of facilities and personnel are available:

a. Throughout Java and Bali, Centers for Mother and Child Welfare are available even in villages; there are also maternity hospitals, doctors and midwives, all of them employed by the Centers for Mother and Child Welfare.

b. Personnel which has been trained in Family Planning.

c. Facilities and personnel provided by several departments such as : Dept. of Social Welfare, Dept. of Religion, Dept. of Education etc.

d. Family Planning Movements sponsored by public organizations, among others the Indonesian Family Planning Association, clinics run by the Army, the Veterans Association, Muhammadijah, Chatholics, Protestants, etc.

e. Family Planning clinics now in operation number about 226, of which 50 are in Djakarta, 34 in West Java, 78 in Central Java, 34 in East Java, 8 in Jogjakarta and 22 in Bali.

2. Policy and Measures

Family planning is a national program, conducted by the people with the full assistance, support, and protection of the Government, administered through the National Family Planning Institute of Indonesia.

The Government provides assistance in the form of facilities for location, personnel, equipment and financing. The main purposes of family planning are :

1. improving the health and welfare of mothers and children as well as their families and the nation in general,
2. improving the people's living conditions by decreasing the birth rate so that the population growth will not outstrip productive capacity.

The practice of family planning is entirely voluntarily and in accordance with the morality of our Pantjasila and of private religious beliefs.

This program will be started on Java and Bali because of the fact that 66 per cent of the whole Indonesian population is found on those two islands totalling only 7 per cent of the area of this country.

The implementation of this program will be initiated in the capitals of provinces and in large cities, and later in the district capitals, and in the last years of the Five-Year Plan it will be extended to the villages. The cities have priority, because of the availability of many facilities and personnel and the fact that the urban population is more apt to accept the idea of family planning.

The aim of family planning is to prevent 600,000 to 700,000 births by reaching a target of 3,000,000 acceptors (eligible women) regularly visiting the family planning institutions.

In detail the target to be reached is shown in Table XI-B-1.

The implementation of the program as regards information and motivation should be carried out by personal contact, in meetings, in formal discussions, and by the use of

Table XI-B-1

TARGET OF THE FAMILY PLANNING SERVICE

Year	Number of acceptors	Cumulative total
1969	100,000	100,000
1970	200,000	300,000
1971	400,000	700,000
1972	800,000	1,500,000
1973	1,500,000	3,000,000

Table XI-B-2

NUMBER OF FAMILY PLANNING CLINICS

Year	Complete	Simple
1969	300	300
1970	150	200
1971	200	200
1972	250	250
1973	300	300
Total	1,200	1,250

mass media such as newspapers, radio, pamphlets, posters, and so on. Field workers are needed for personal contact; through upgrading and training the need for doctors, midwives, nurses and field workers will be met.

The people, the Government and foreign aid are expected to finance the program. In the Five-Year Plan, the family planning program has a target of 300,000 acceptors and will need Rp. 525 million (the total cost to obtain one acceptor is Rp. 1,750). The family planning program includes information, health education, health service, preparation of medical equipment, study and compilation of the Government's regulations on health.

3. Information

The content and activities of the general information are directed toward providing motivation, understanding, and appreciation on the part of the people. Special information should be directed toward expectant mothers, to regular visitors to the Centers for Mother and Child Welfare, and to mothers after delivery, of which there are a total of 8 million in towns and villages, where there are also 15 million women at child bearing age.

The activities of the family planning program in the field of information will be carried out by personal contact, through the mass media such as radio, television, newspapers, magazines and pamphlets; also through official study programs such as in schools, universities, lectures, group discussions and visits from house to house.

4. Education

Technicians will be obtained from among doctors, midwives, and nurses, by equipping them with knowledge of family planning through upgrading courses.

Field workers will be obtained through volunteers from government bodies, public organizations, and information personnel, by giving them 2-3 week training courses. If the situation admits, field workers will be employed full time. For training, a National Training Center will be opened in Djakarta for doctors, midwives, field workers and other personnel totalling 1,500 (an average of 300 persons a year). Six Provincial Training Centers will be opened for the provincial level in Djakarta, Bandung, Semarang, Jogjakarta, Surabaja and Denpasar, which will have the responsibility of training provincial executive personnel (about 2,220 annually, up to a total of 14,000).

5. Health Service

Health service centers include hospitals, Public Health Centers, Institutions for Mother and Child Welfare, and special clinics. At present in Java, Bali and Madura there are 3,000 beds available for delivery, 2752 Welfare clinics (Type A/B/C) and special family planning clinics.

Clinics to be established each year are as shown in Table XI-B-2.

For the time being only clinics where a doctor is available are permitted to extend service and medical treatment, other clinics may only provide information and then refer patients to clinics where doctors are available.

It is expected that in 1969, at least 300 complete clinics will be established where several kinds of contraceptives (it depends on the acceptor's choice) will be available against payment based on the acceptor's ability to pay or even gratis. Every field worker who finds an acceptor, and all technical-medical personnel will be given incentives. Doctors with an afternoon practise should be urged to participate in this program.

6. Supply of Equipment

Equipment, which includes contraceptives, office supplies and equipment, audio-visual aids, medical and laboratory instruments, transportation (cars and bicycles), libraries, etc., will be obtained from the government supplies or from public and foreign aid. Personnel, whenever possible, will be taken from government organs and from among volunteers.

7. Research

To stimulate implementation of the program, complete data on population, public opinion, religion, customs, attitudes, facilities, and executing personnel, should be compiled. An evaluation of the effectiveness, efficiency, cost, and results obtained will be made for purposes of continually improving program implementation.

Table XI-1

FIVE-YEAR DEVELOPMENT PLAN
(1969/70 - 1973/74)
PUBLIC HEALTH AND FAMILY PLANNING
FINANCING

Sector/ Sub-sector/Program	State Development Budget (in million rupiah)	
	1969/70	1969/70-1973/74
Social Welfare Sector		
Sector of Public Health and Family Planning	4,609[x]	42,000
1. Public Health Sub-sector	4,139[x]	36,000
a. Public Health Educational Program	42	233
b. Infrastructure Development Public Health Program	1,655	13,204
c. Program of Eradication of contagious diseases	836	4,622
d. Public Health Program Rehabilitation and Improvement	106	1,751
e. Program of the supply of medicines and medical equipment	900	16,190

2. Family Planning Sub-sector	470x)	6,000
a. Family Planning Consulting Program	470x)	6,000
Public Health and Family Planning activities included in other sectoral budgets:		
a. Education of Public Health Personnel (included in the Education and Culture Sector, Sub-sector Education and Institutional Research)	305	1,700
b. Improvement in Public Health Research (included in the Education and Culture Sector, Sub-sector Education and Institutional Research)	20	160
c. Village drinking water supply (included in the Sector of Housing, Social Welfare, Water, and Sanitation)	16	140

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x) Including Rp. 600,000,000,- technical project aid for Sub-Sector Public Health and Rp. 350,000,000,- for Sub-Sector Family Planning.

CHAPTER XII

HOUSING AND SOCIAL WELFARE

A. HOUSING AND DRINKING WATER

Introduction

For every man housing represents a basic need beside food and clothing. It is one of the main elements in the people's welfare. Besides, housing conditions strongly influence character and personality and even the productivity of an individual. Thus, good housing conditions can promote economic development. On the other hand, the ability to build proper housing depends heavily on growth and economic development.

Housing in Indonesia is still far from adequate. From the point of view of quantity as well as quality, it is still far under the minimal requirements. The shortage is much more evident in big cities due to the high rate of urbanization. A lack of housing of proper quality is found in villages and city slums, caused primarily by the increase of people coming to the age of marriage, because of the high rate of birth in the fifties. Urbanization -- that is the flow of people from the country into the cities -- has also reached a high rate. Destruction during the war of independence and disturbances of peace seriously affect the housing shortage. And finally, economic problems, a low standard of living, and insufficient facilities and building materials also contributed to the lack of housing. In the years ahead this problem of housing shortage will become worse if it is not solved properly. Besides catching up with the present shortage, development of the housing sector should keep pace with the increase of population.

The problem can be divided into two sections, that is, urban and rural housing. Urban housing can also be divided into big city housing and town housing. In the big cities the problem is indicated by the very small number of houses compared with the size of the population.

Besides, a lot of houses in the cities do not fulfill the minimum requirements of a good living standard; those are the houses on the outskirts, and the squatter's houses in the town itself. Difficulties also arise in connection with land, drinking water facilities, electricity, health, etc. It is also true that there is a great disparity between building costs and rent, on one hand, and the purchasing power of the people on the other. In small towns the problem is relatively easier, even though a shortage of houses still exists. In the countryside the inadequacy lies in the quality in that many houses do not fulfill technical and constructional requirements. Seen from the point of view of social conditions, health facilities are still lacking.

The housing shortage in the cities has a close connection with social and economic growth in the villages. The shortage is very great and very pressing. This is due to urbanization which reveals the existence of an imbalance between social-economic conditions of the cities and of the villages.

On the other hand, house building in the cities will stimulate the production of building materials in the villages. This will increase employment opportunities and thus village income. Indirectly this helps in solving the village housing problem, which is mainly caused by the low income rate.

One other thing that should be expanded is city planning. This includes the planning of residential areas, business quarters, industrial areas, transport networks, recreation centers, etc. City planning has been tried in some big cities, but the results have not as yet come up to expectations. It is hoped that with city planning the housing problem can be tackled in a more satisfactory manner.

Financing is the most difficult thing in this housing problem. As mentioned before, a disparity exists between building costs or rent and the purchasing power of the people in general. This fact does not stimulate the building of houses for people with low or medium income. For certain groups of people houses are provided. Government officials, for instance, are provided with housing by the Government, and private enterprises provide houses for their employees. Other solutions must be found to the problem of the financing of housing development.

Outside city planning, regulations and decisions in the field of housing still need much improvement. The existing regulations do not result in proper order in housing. There is no regulation of rent, leases and purchases which still stimulate the building of houses. And then there are confusions about the concerned authority, as for instance, between government offices like the Department of Public Works, Department of Social Affairs, Municipality,etc. An overall improvement should be endeavoured in this field.

Housing problems in the cities as well as in the small towns, which are very closely related and have a mutual influence, will be regulated and projected according to a single pattern, that is city planning and village planning.

Activities that will be carried out in the area of housing development include a variety of tasks belonging to the Central Government, as well as to the provinces, private enterprise and the society itself. Within the planning of housing, the problems and their solutions will be classified into city housing, village housing, city planning and village planning.

1. Situation and Problems

1.1 City Housing

Besides the things mentioned above such as lack of quantity, poor quality houses which do not meet minimum standards and uncontrollable squatter houses, there is the density of population, especially in big cities. Indeed, the number of houses and the size of the population is not proportional.

The demand for houses is approximately 300,000 per year, while the building capacity is only 40,000 a year. Actually, the cities possess the facilities to build housing but a system of financing through hire-purchase or long-term credit is not available or has not been developed. This is due to the high inflation rate in the past. Efforts along these lines have been tried in the provinces, and resulted in a production of 12,500 houses in a ten-year period (following regulations given by the Minister of Public Works in 1951).

This system of financing is designed to stimulate housing through the housing industries, which at the same time increases employment. In some government and state enterprises, officials' houses are provided at the expense of the state budget in the form of direct financing. Even though this is quite a burden for the Government the provision is still not very large. A better system is going to be applied in this sector. There is still no effective regulation of the size and type of such government houses. It is also true that there's as yet no stipulation as to give a just system and procedure for housing occupation, which is proper and providing peace to the inhabitants.

In order to have a better planning in the housing field, research should be made on the needs of housing in connection with the income of a certain group of society in the cities.

In a small town the condition is relatively easier.

1.2 Housing in the Villages

In general, the condition of village housing is far from meeting technical and social requirements as well as those of proper health. Seventy three per cent of the houses still have dirt floors. Only 32 per cent have their own wells, 23 per cent their own bathrooms, and 12 per cent private toilets.

This results from a low rate of income and is also caused by the static living pattern of the village society. Guidance and information about housing are also lacking, and local enterprises which produce building materials in the villages have not been developed.

Still, the demand for housing is not so strongly felt as it is in the cities and the shortage can be overcome by the gotong rojong (mutual assistance) system which is the tradition in village life.

1.3 City Planning and Village Planning

One thing that greatly influences the development of cities and villages is the increase of population and the movement into certain cities. The consequences of this movement need attention and solution.

Urbanization creates difficulties in the housing sector, in employment and in the provision of the commodities and facilities needed for a healthy city life. Making land available for various activities, is one step toward overcoming these difficulties. Provision of land will stimulate the building of houses and other enterprises. A good plan can indicate which land is suitable for housing, industry, agriculture, trade, religion, recreation and other basic needs of society. This provision of adequate land and co-ordination of its use is spelled out in the city plan. The problem of disproportionate development between urban and rural areas can be solved through regional planning.

2. Policy and Measures

2.1 General

After food and clothing, housing development is one of the main factors, shaping a just and prosperous society. Better housing conditions will influence productivity and thereby increase economic activity in general.

The target of housing development is to provide living quarters within a surrounding that meet the requirements for a good living standard, socially, economically, and physically. This is mainly aimed at low-cost housing.

2.2 City Housing

Present facts show that the materials as well as the funds for housing development are very limited. Therefore, solving the housing problem will be carried out in phases after determining a scale of priorities. Measures will be taken to prevent, or at least to minimize, the worsening of conditions. Physical facilities will be made available to stimulate house building in such a way that the greater part of it will be built by the people themselves. These facilities will be in the form of land, tax dispensations, water supply, roads, drainage, waste disposal, all following a city planning pattern. Any obstacles in the sector of housing development will also be eliminated.

For the greater part, the financing of housing development should be done privately. Financing out of the state budget is limited to supplying the facilities and equipment needed to stimulate development.

In addition, the Government will carry out research, surveys and projects on housing models. This project is to investigate building materials and their efficient use, so that there can be developed a good house, inexpensive but strong and healthly.

Financing through long-term credit and hire-purchase system will be provided to stimulate housing development, and in this way a healthy climate will be created for the housing industry.

The housing supply for government officials will be improved. To avoid a great burden on the state budget, direct financing such as has been used by the Government will be changed to long-term credit or hire-purchase system. Regulations concerning housing standards, allocations, and hire-purchase will be formulated.

In detail, the following will be done:

(a) To stimulate enterprises in the field of housing, bank credits with easy terms will be given to non-profit organizations. Guarantees will be given to investors of capital and to banks which give credit for house building.

(b) To provide basic necessities and facilities for housing development, a pattern of land use will be decided upon, including regulations which will prevent speculation and determine land prices. Improvement in land cultivation will be encouraged and facilities will be supplied, such as roads, waterworks and drinking water.

(c) Specifically, on the technical side, building materials and equipment will be standardized, and model projects of strong, healthy and inexpensive housing will be developed. These projects will be established in the capital of every province.

(d) Guidance and information will be given to the public, concerning housing health, building techniques and usage of materials. This will be done through the Housing Information Center.

(e) To upgrade the quality of building materials, the industries will be improved and research into new sources carried out. For the better distribution of materials the building of houses is directed toward using local products.

(f) Provide housing for government officials, the direct financing system will be changed to a system of subsidies, and credits, maintaining the same housing standards. The objective is to provide housing that the official will be able to pay for in terms or hire-purchase within a period of 20 years.

(g) To meet the demand for housing, surveys, research, statistics and planning is going to be used to investigate the demand for, and conditions of housing and also the income level of various groups in urban society.

(h) In order to carry out the above policies, government apparatus and authorities, central and regional, private, cooperative, etc., will be improved and, where necessary, reconstructed. In the provinces Information Centers will be improved.

2.3 Village Housing

The solution of this problem is sought within the framework of rural village development on the whole, where it can contribute to the people's skill. The gotong rojong system, already a tradition of village life, will be encouraged and improved into a system for solving the problem of village housing.

Information will be given to the village people, and their understanding of proper living will be encouraged to stimulate housing development. Publications will be issued and training conducted with a focus on the social, technical, and health aspects of housing. A book on gotong rojong housing will be composed, to give information on house building in the villages. This book will explain about the development, improvement, and production of building materials, and their use, and also building techniques, simple building equipment, organization of work and financing. Projects for building prototypes of village housing will be established in every province.

2.4 City Planning, Regional, and Village Planning

Within five years it is expected that every province will have a planning pattern and that there will be a city planning pattern for every capital and principal city in the province like harbor cities, industrial towns, trade centers etc. City planning units will also be established in every region.

In the city planning program priority is given to cities having the biggest social and economic problems like Djakarta, Bandung, Surabaja, Medan, Palembang and Semarang. And also harbors and newly developing towns like Tjirebon, Bitung, Pandjang, Dumai, Karawang, Tasikmalaja, Malang and Solo. Industrial estates will also established.

In regional and village planning programs, priority is given to densely populated areas associated with employment opportunities, like West Java, East Java, North Sumatra and Bali, and also to regions with a large development potential like Lampung, South Kalimantan and South Sulawesi.

In the first phase, the drawing up of the city pattern is aimed at the best possible use of urban land, and the regional plan pattern is aimed at the development possibilities of each region.

A regulation on city planning to substitute for the S.V.O. of 1948 and a new regulation covering regional or village planning will be issued.

2.5 Techniques of Sanitation (Drinking Water, Drainage and Sewerage)

Facilities for sanitation, including drinking water, drainage and sewerage, are still far from satisfactory, especially drinking water. This is badly felt in big, densely populated cities and where people must depend on a central water supply. First priority in improving this situation is given to provincial capitals, harbor towns, industrial areas, tourist resorts, etc. All this will be done in line with other priority fields.

Increasing the drinking water supply will be done by utilizing resources originated in the earth (wells). This is the simplest and least expensive method, for in general the water is already clear, and it only needs chlorine to kill germs. This will be done by rehabilitating and increasing the existing drinking water facilities, in order to obtain the optimum capacity. In places having a pressing need for drinking water new reservoirs will be established, like in Ambon, Palembang, Surabaja, Semarang, Padang, Tandjungbalai, Bogor, Manado, Djakarta, Kupang, Makasar, Solo, Denpasar, Bitung, Jogjakarta and Sukabumi.

The present production is about 9,000 litres a second. The target for 1973 is 17,000 litres, an addition to 8,000 litres a second being projected.

To increase city cleanliness and to prevent floods, drainage, sewerage and rubbish disposal will be improved. This covers rehabilitation and utilization of trash burning facilities.

B. SOCIAL WELFARE

Introduction

In the field of social welfare there are problems which need special attention namely the poor, orphans, isolated ethnic groups, invalids, etc. There are also the problems of victims of the G-30-S/Communist movement, repatriations, unemployment, juvenile delinquency, etc.

Besides, there should be activities which can free the society from obsolete traditions hindering development. The interest and participation of the people in development should be encouraged.

1. Situation and Problems

Village Social Institutes at present total 33,400. In addition to existing local organizations like village cooperatives, for example, Village Social Institutes play an important role in the implementation of social programs and village development activities.

Every national development effort will bring about fundamental social changes. These efforts may be hindered, though, if negative factors originating in traditionalism, irrationalism and feudalism are not eliminated.

Experienced, well-trained and skillful social workers are needed to solve these social problems. For this training, guidance and education are necessary, in addition to research and surveys for planning and operational activities.

Unhealthy developments in family life, in children and in youth are caused by very complex factors. Solving these problems requires a series of measures in various fields, well coordinated and well directed among all interested parties.

Besides, neglected orphans, and mentally and physically retarded children have not been properly placed in orphanages and rehabilitation centers. Recreation Centers for youth, such as the Karang Taruna "Youth Center", are still very few in number and very imperfect.

Invalids are grouped as follows: chronic invalids, the blind, dumb, or deaf, the mentally retarded, the socially, that is morally, retarded and the unemployed.

Unemployment is largely caused by a lack of jobs in the villages so that people are compelled to move into the cities, the result of which is that they become unemployed in the sense of not having permanent jobs fit for human beings.

Veterans are grouped into: Independence pioneers and fighters, revolutionary heroes, volunteers, Ampera heroes, etc. Proper and regular assistance has not been given to them nor to their families.

The casualties from natural disasters like eruptions, floods and famine, which happen almost every year in certain areas, have not been able to be taken care of properly.

Another problem is to rehabilitate and assist victims of the Communist coup so as to avoid the emergence of negative effects.

Furthermore, in Holland there still live Indonesians who would like to return to Indonesia, but not having the means, have to be taken care of.

2. Policies and Measures

2.1 Village Social Welfare

2.1.1 Village Social Institutes

In line with the reorganization and controlling of central and regional government apparatus and within the framework of increasing village development, the construction and development of Village Social Institutes will be maintained. Training will be given to the Village Social Institute Boards. The target for 1969 is 4,500 Institutes, and for the five-year period it is expected that in every village one Social Institute will be established.

2.1.2 Settlement of Primitive Peoples

From 1969 to 1973, a survey and registration will be carried out in areas where these isolated people live; they will be approached and guidance will be given to them to live socially, to build model villages, etc.

For 1969 the targets are three projects, and for the five-year period there are fifteen. They are: in Djambi, (Batanghari, Sarko) in South Sumatra (Musi Rawas, Musi Banjuasin), in Riau (Bengkalis, Indragiri), in West Sumatra (Mentawai), in East Kalimantan (Tabang and Bulongan), in South Kalimantan (Hulu Banju and Peramasan Dua-Kali Sanga), in West Kalimantan (Kapuas Hulu), Central Sulawesi (Danau

Moto/Donggala), in South Sulawesi (Polmas, Mamudju), in East Nusa Tenggara (Soe and Flores) and in Maluku (Ceram and Halmahera).

2.2 Social Changes

Various processes and social forces which are very complex in nature should be understood and comprehended, in order to be able to decide on policies and measures to bring about planned and controlled social change. The first prerequisite is research and surveys in towns as well as in villages. The research will give general guidelines for further activities.

2.3 Education, Research and Surveys, Guidance, and Construction

Education and training will be given to social workers stressing upgrading and field work. A School of Social Welfare will be established in Bandung, and courses for Social Vocations will be opened in Kupang,Padang, Djakarta and Medan.

Research on social problems will be conducted for the benefit of planning and operational activities.

To make the participation of public bodies and power more positive, guidance and information to the public will be intensified through social courses, mass media, publications, house to house visits, etc.

Development of public powers, funds and forces will be endeavoured to be directed toward more positive targets.

2.4 The Welfare of Children, Family and Society

To combat unhealthy phenomena in the environment of the family, children and youth, efforts will be made to give more information to people to help them achieve a healthy and harmonious family life; guidance and educational opportunities are to be given to children and youth, and recreation centers are to be established. Existing enterprises will be upgraded and broadened in their activities and complementary new activities, well planned and directed, will be added.

2.4.1 Children's Welfare

In this area, the guidance and education of juvenile delinquents and neglected children is upgraded, by intensification and extensification of educational and nursing institutions. Projects will be established for model social institutions. Nine model institutions will be established in 1969. Job training projects will be developed for physically handicapped children, in the form of workshops as well as sheltered shops.

2.4.2 Youth Welfare

The drafting of a Youth Welfare Bill will be started in 1969.

The talents and ideals of young people will be developed by healthy recreation through intensification and extensifications of youth centers.

A project of health recreation studios will be established. The target of the first phase will be 25; 5 studios for each year.

Taking into consideration the high percentage of children and youth in Indonesia, it is most important that in every development sector in the first phase, attention is paid to the interest of youth. Understanding should be fostered and solutions should be sought for all problems of children and youth in connection with other development activities.

2.4.3 Family Welfare

A happy family provides a good climate for the personal development of a child. Guidance and information will be provided to promote family welfare and the establishment of childrens homes and nurseries for working mothers. Assistance will be given to broken homes.

2.5 Rehabilitation of the Physically Handicapped

Rehabilitation is to be carried out through programs of mental rehabilitation, by providing facilities and vocational training and also job placement in appropriate fields, all designed to prepare the handicapped to participate in the society.

2.6 Welfare for the Victims of the Independence War

The Government should show its appreciation to the heroes. A better registration will be made of victims of the war, Independence pioneers, volunteers, Ampera heroes, etc. Better assistance will be given.

2.7 Victims of Natural Disasters and Others

2.7.1 Natural Disasters

The collecting of funds and their allocation will be improved. Work on the prevention of natural disasters will be intensified involving better cooperation between the Central and regional governments.

2.7.2 Victims of the G.30.S Communist Coup

Mental guidance and rehabilitation are given to the younger generation within the framework of returning them to society. Utilization of the power of the rehabilitated group in productive fields. A place to work in some other area is given to those who would find it difficult to be accepted into their own society.

2.8 Repatriation

Mental and phsychological preparations are carried out for people who want to return to Indonesia. A place is established to receive them at home, temporarily as well as permanently, and they will be made ready to enter the society.

2.9 Social Funds

People will be informed and encouraged to participate and to give money for social purposes. Coordination and cooperation in the collection of funds will be improved. Intensive control will be exercised over the collection and use of funds by social institutions.

Table XII-1

FINANCING OF THE FIVE-YEAR DEVELOPMENT PLAN HOUSING, SOCIAL WELFARE AND DRINKING WATER SUPPLY 1969/70 - 1973/74

Field/Sector/ Sub-sector/Program	State Development Budget 1969/70 (in million rupiah)	State Development Budget 1969/70 - 1973/74 (in million rupiah)
Field : SOCIAL		
Sector: Housing, Social Welfare and Drinking Water Supply	1,521	13,278
1. Sub-sector: People's Housing Town and Regional Planning	250	2,183
a. Information Program for City and Rural Housing Developments	180	1,572
b. Planning Program for City and Regional Plans	70	611
2. Sub-sector: Social Welfare	205	1,790
a. Program for Social Improvement Development	25	219
b. Program for Social Assistance	180	1,571
3. Sub-sector: Drinking Water and Sewerage	1,066	9,305
a. Program for Increased Drinking Water Supply	1,016	8,869
b. Program for Improved Sewerage System	50	436
Social Welfare Activities, the Financing of which are included in other sectors		
a. Education of Social Workers (included in Sector: Education & Culture; Sub-sector: Education and Institutional Research)	18	147
b. Social Improvement Research (included in the same Sector as above)	2	19
c. Improvement of Physical Infrastructure (included in Sector: General Administration; Sub-sector: General Administration)	50	281

CHAPTER XIII

LEGAL ORDER AND INFORMATION

A. LEGAL ORDER

Introduction

The Republic of Indonesia is a state founded on laws and not merely on power. Therefore the "Rule of Law" is held firmly. This principle is embodied in its three main elements, namely:

1) Recognition and protection of basic human rights.
2) Justice which is independent and impartial.
3) Legality in the sense of formal and material law.

The above principle is to be interpreted positively and dynamically as in its application it demands that the body of laws will be consistent with the progress, the needs and the aspirations of the community. If this is realized, law will be important, in creating a climate favorable for carrying out the Five-Year Development Plan.

The development of the legal field, beside involving efforts in connection with the above-mentioned three elements, will also cover the following:

a. Review, on a selective basis, of laws which either hamper, or are not in line with the progress, the needs and the aspirations of the community.

b. Develop legislation which establishes a "legal framework" for the execution of development in general.

c. Create a legal order based on the Pantja Sila, which will be the basis of a stable national life.

1. Situation and Problems

In a country that is founded on law, the three elements of the "Rule of Law" mentioned above should be apparent in every day social life. In practice this has not been realized and deviations from the "Rule of Law" principle have often occurred in our country. We are frequently faced with events which violate our basic rights, involving a misuse of authority individual as well as institutional in character. The deviations from law with which we are dealing, actually lie in two fields:

a. The legislative and lawmaking field.

b. The law enforcement or adaptation field.

a. Problems which lie in the legislative field are as follows:

a.1 deviations from the implementation of the 1945 Constitution.

a.2 the issuing of Presidential Decisions and Regulations, as a consequence of the Decree of July 5, 1959.

a.3 the existence of laws and regulations, which contradict the 1945 Constitution.

a.4 the fact that there is no code of national law, in keeping with the legal consciousness of the people adhering to the Pantja Sila democracy to take the place of the feudal and colonial law which was valid in the pre-Independence period.

b. Problems in the law enforcement field, are:

b.1 the absence of quick and orderly administration of justice. The solution of cases takes a long time, sometimes so long that people seeking justice are reluctant to use the courts. The process of solving a criminal lawsuit involves investigation, prosecution, judgment, and sentencing, and the execution of these activities which will determine the quickness or slowness of the case solution. Administrative and juridical procedures are to be improved.

In civil lawsuits, in fact, the legal assistance given by the lawyer also determines the duration of the case.

b.2 Since administrative laws have not been established, difficulties are encountered in the protection of the people against harmful actions by authorities or law enforcement officials, such as the misuse of authority and laws.

b.3 In detention,confiscation and search, violations of the law of procedure often occur.

b.4 the influence of extra-juridical factors upon the courts should be eliminated to preserve the objectivity and independence of the Judge. Free and impartial justice is one of the corner stones of our country, whether viewed from the institutional or the personal side. The best guarantee of this lies in the person of the Judge individually. Also involved is the position of the Judge, and other factors which guarantee that he will act objectively and impartially.

b.5 Administrative improvements should be introduced concerning evidence, confiscated goods, fines, costs, and the compensation of expenses of witnesses and detained persons.

b.6 In the treatment of law breakers the system of imprisonment needs to be brought into line with the principles of Pantja Sila, in the sense of developing a socially educative system without neglecting necessary repressive measures.

.7 Corruption and smuggling must be dealt with by firm measures. Undermining of the economy by foreigners should be given special attention and control over foreigners entering and leaving the country should be intensified.

.8 Uniformity still remains to be achieved in the application of law to civilians and to members of the armed forces.

.9 A law-abiding attitude on the part of the community is still not well established. This is an obstacle to the achievement of a life shaped by the "Rule of Law". The old habit of coveting the "Rule of Man", that we learned in the period now past remains impervious to evidence of losses that have occurred through the abuse of power.

.10 Personnel and material in this field still have to be improved.

2. Policy and Measures

The conditions and the problems mentioned above form the basis for deciding policies and procedures in the Five-Year Development Plan.

2.1 The Legislative and Law-making Field

a. To carry out legislation based on the 1945 Constitution and the Decrees of the Provisional People's Consultative Assembly concerning the following:

1. Social Welfare
2. State Finance
3. National Defense and Security
4. Politics

5. Law and Justice

b. To undertake the framing of national law covering:

1. Criminal Law
2. Civil Law
3. Commercial Law
4. Penal Code of Procedures
5. Civil Code of Procedures

2.2 The Law Enforcement/Adaptation Field

a. To carry out fast and orderly administration of justice, legal processes comprise a series of interconnected activities: in criminal cases they include investigations, finger prints, prosecution, sentencing and penalties. The officials who are functionally involved are the police, the lawyers and the judge. In a civil case the legal assistance given by the lawyer also helps to determine the duration of the lawsuit. To achieve swift and orderly administration of justice, functional co-ordination of all parties involved will be promoted. In addition, the ability and the honesty exhibited by legal personnel in the execution of their tasks is of the greatest importance.

b. To undertake the framing of administrative law.

c. Control of and putting order into the system of detention, search and confiscation, putting the authority of legal officials in the right proportion, including a proper adaptation of laws of procedures.

d. Extra-judicial factors:

To ensure independent and impartial administration of justice, extra-judicial factors will be eliminated. In connection with this principle of independence, it is endeavoured to bring about clearance in institutional relations between government institutions having judicial authority, administratively as well as judicially. The character of the individual judge is the chief guarantee of legal impartiality. The position, salary and status of judges is being improved. Material facilities and provision of housing must be increased within the framework of carrying out the judge's tour of duty.

e. Administration improvement concerning especially: evidence, confiscated goods, fines, legal compensation, reimbursement of witnesses and costs of arrest.

f. Improvement of legal apparatus and the prison system. This will be done by physical rehabilitation of prisons in order to give training and skills to prisoners before they are released from prison. The Pantja Sila character is taken as the basis for the treatment of prisoners.

g. Immigration apparatus must still be improved to ensure National Security and Integrity. Control over the movement of foreigners will be intensified on the basis of selective policy, especially in inter-insular traffic, and for this purpose inter-insular transport and communication should be rehabilitated and accelerated. There will be better co-ordination of immigration, customs, the police force, the office of the prosecutor and other authorities.

h. The indiscriminate enforcement and administration of the law, to civilians and members of the Armed Forces will be endeavored.

i. To increase a law-abiding mentality in the community.

j. Improvement of personnel and material pre-requisites.

k. Education Training and Upgrading.
Programs of systematic education, training, and upgrading will be developed for technical as well as administrative personnel attached to the Central and Regional Governments.

Judges and clerk~~s~~ will also be upgraded, and officials of the prisons will be trained, and the same thing will be applied to immigration and administration officials. An "Executive Development Program" will be conducted to train managing cadres. Prosecutors will be given general and judicial training. As funds are limited, rehabilitation of available training facilities will be carried out only in these offices, and upgrading and training opportunities given by other authorities will be utilized wherever possible. To improve consistency in carrying out judicial functions, co-operation between the civil courts and those of the Armed Forces will be promoted.

1. Rehabilitation and Expansion of the Functions of Courts and Prosecutors' Offices.

This will be done by phases, in line with the available funds. Inequities in the area of legal services to the public will be minimized. To allow sessions to be held conveniently, more rooms will be provided with the assistance of the regional governments. This will help win more appreciation of the public for the function of the law enforcement elements. Efforts will be made to establish a district court of first instance and public prosecutor's offices in every district (kabupaten) and an appellate court of justice and an attorney's office in every province. This is expected to be carried out in two phases. The first is outlined in the Five-Year Development Plan, the target of which will be reached while taking into consideration both the size of the population and the area of jurisdiction. The latter will be used as the basis for determining the class of the court of justice and the prosecution office in each of the regions, and the constitution of its personnel. In the case of a very extensive jurisdiction, mobile courts will be employed, for which transport will be provided.

m. Law Library and Bibliography.

As an integral part of the courts and prosecutors' offices, a library and bibliography of law will be established and equipped. Besides books on social sciences, especially law, and up-to-date reference materials, libraries of jurisprudence, magazines, regulations and legislative acts will be collected. Foreign aid and co-operation with universities will be fully utilized. Legal decisions will be compiled systematically to form the basis of subsequent jurisprudence.

Table XIII-A-1

FINANCING OF THE FIVE-YEAR DEVELOPMENT PLAN
LEGAL ORDER
1969/70 - 1973/74
(in millions of rupiah)

Field/Sector/ Sub-Sector/Program	1969/70	1969/70-1973/74
Social Field		
Legal Order Sector	1,060	9,269
1. Legal Order Sub-Sector	1,060	9,269
a. Legal Order Development Program	645	5,631
b. Prisoner Rehabilitation and Reclassification Program	415	3,638
Activities of Legal Order, financed by other sectors		
a. Education of Law officials (included in the Education and Cultural Sector, Education and Institutional Research Sub-Sector)	40	204

B. INFORMATION

Introduction

To assure the success of the Five-Year Development Plan, efforts will be made to disseminate widely the ideas and the attitudes contained in the plan, in order to gain the active participation of the whole society in carrying it out.

Effective information is needed to foster that understanding and appreciation. Since information activities are carried out by the Government as well as by the society a national information program will be composed. Information concerning the Five-Year Development Plan and its implementation will be provided by government apparatus. The Government will also determine policies concerning information given by the community.

Stimulation and encouragement will be given in this area which will be simpler and more aceeptable to the public, since it comes from the public itself.

A national information system would include the participation of prominent public figures (in the scientific and other social fields). In this way, understanding will more easily develop.

Information methods will be improved. Instruction will be by discussions, seminars, etc. Upgrading will be given to government information officers.

It is necessary, that the news broadcasting system be improved. This will be integrated with other methods of spreading informations such as post, telecommunication, and other communication systems. The information program in the Five-Year Development Plan is not only to increase its effectiveness, but also to bring the whole system into line with the Pantja Sila democracy.

1. Situation and Problems

In the past, information was given in the form of indoctrination and oratory. It was more sloganism than concrete and useful activity. Besides it was very much controlled, thereby dulling the creative information capacity of the people.

The condition of the information officials, in terms of mental skill and adaptability must be improved. Institutions for the upgrading of information officers, including education in filming, broadcasting, and television are still very limited.

Physical requirements of the Government in the way of mass media are still lacking, from the point of view of the vast territory and the wide distribution of the population. Equipment has to be rehabilitated and changed as much of it is broken or obsolete. Radios, television sets, presses, audio-visual units, and public address systems are very much needed to bring information directly to the people.

In general, materials such as photos, documentaries, story films, and other kinds of exhibitions are lacking. The system for sending information abroad, is also very poor, due to old and obsolete equipment. Information given out by various government authorities also needs improved coordination.

In several areas of information, the condition has been deteriorating, such as newspapers and magazines, of which two million a day were published before 1967 and only 900 thousand today. The regional press is still very backward and its development is not flourishing, compared with that in the capital, due to lack of materials. The same is true of the capacity of printing offices in the provinces, because the distribution of their production has not been smooth. Difficulties have occurred in matrix supplies, resulting in badly printed papers. By now, matrices have been imported. Two printing units have been built in Djakarta and Surabaja, and two are being built in Makasar and Medan.

Television shows some progress, however, it still needs improvement. At present there are two stations, one in Djakarta and one in Jogjakarta, six relay stations, and three transmitting stations to permit the reception of T.V. programs in Nagrak, Gombel and Tawangmangu. Some places in Sumatra are able to receive programs from Malaysia and Singapore. For radio, there are one national studio, 3 nusantara studios and 38 regional studios organized by the Radio Republik Indonesia. Beside that there are also amateur studios. When the Tjimanggis national broadcasting station is completed (3 of 110 KW and 2 of 50 KW) its broadcasts are expected to reach the whole Indonesian Archipelago, Europe, Asia and Australia.

2. Policy and Measures

2.1 The Policy and the Targets for Information

The policy is aimed at increasing understanding and active participation on the part of the society toward the Five-Year Development Plan, and at the same time encourage conciousness to develop. This will be done by increasing efficiency and improving equipment and upgrading information officers and stimulating information activities by the public in line with the Government's policy. Encouragement of activities and effective networks already existing in the society and of specialized information on certain subjects will ease the burden of the Government in this field. The information will be more effective and a sense of appreciation on the part of the public will be created.

Making use of prominent public figures in the fields of science, the arts, religion, and other social fields will help this program. The stimulation and direction of information by the public will be given by the Government by providing materials, reports, briefings, press conferences, and so on, so that the public will be well informed about the government policy. Moreover, facilities will be provided for education, upgrading and training in more advanced information techniques such as journalism, printing, photography, etc. Press rooms will be built and people active in mass information activities will be given the opportunity to accompany government officials making tours to development projects for the purpose of checking the progress made so that they can explain things they have seen "on the spot". Development problems will be brought to seminars and the results will be broadcast, for example village modernization, the sowing of highgrade seeds, fund raising, urbanization, etc. Consultations will be held continuously as well as dialogues and co-operative efforts between government and private mass information apparatus.

The co-ordination of various information activities by government agencies will be improved, thereby increasing efficiency and improving results. The system of information will emphasize direct information to the people, either through communication media such as radio and television or by visits, seminars, morning courses in mosques, the press, film performances, mass meetings, publications, etc. There will also be visual aids and information in local languages. A system of participation will be used rather than indoctrination.

All this requires more skillful information specialists. They should be equipped with good ability in communication techniques, and a strong character so as to be able to explain things in a manner that will be acceptable to the public.

There will be schools and courses for information officers. Formal education will be given at the Information Academy and the middle and higher grade schools of information (PPSDP and PPSDA). There will also be upgrading and reporter courses. It is expected that in the five-year period all information personnel will be fully trained and upgraded. In the private sector, the same thing is expected with respect to the information apparatus.

The main targets of the information sector are the success of the economic and political rehabilitation and stabilization program, the Five-Year Development Plan, the general election, and the national alertness to resist and avoid the occurrence of the 30 September Communist movement. Priorities -- in the frame of above-mentioned targets -- are given to economic and political rehabilitation and stabilization in Central Java, East Java, West Kalimantan and West Irian. Concerning the Five-Year Plan, information will stress its priorities, namely agriculture, agricultural industries, tourism, etc. For this purpose, equipment will be supplied such as cars and boats carrying public address systems, 16 mm. film projectors, tape recorders, photographic equipment, cine cameras, overhead projectors, etc.

3. Information Infrastructure

The government will build a Government Publication Center. This center will collect and furnish government publication materials and reports on government activities, and also periodic reports on the progress of development.

In the field of the press, the ratio of readers to papers will be raised through increasing newspaper circulations. Improvements in the supply of paper and of management will be adapted to the program of increasing newspaper circulations. Steps will be taken to publish papers in the regions, especially in those places which do not yet have any newspaper. And the quality of journalism will be raised. In the fields of printing and graphic arts, rehabilitation of printing offices in the regions will be emphasized and the printing and capacities for newspapers and magazines, especially outside Java, will be improved. The building of printing offices obtained from East Germany will be undertaken again, that is, in Makasar and Medan, and other printing units will be established outside Java.

National and International transmitters will be finished at Tjimanggis (increased by two domestic and two international transmitters). The whole archipelago and foreign countries will be reached better by broadcasts from Radio Republik Indonesia. The Djajapura and Bandjarmasin stations will be promoted into Nusantara Stations. The regions are encouraged to build their own stations with their own financing. The quality and the reception of the broadcasts will be improved and broadcasts in local languages will be made. Monitoring centers and mechanical workshops will be established. Bearing in mind that the greater part of the population is living in isolated areas, the use of transistors is most important.

There will be an intensification and broadening of television developments and studio facilities. Performance quality will be improved and the broadcasting force will be expanded so that more people will enjoy watching T.V. For this special purpose new broadcasting stations and link stations will be built. Cooperation with the Telecommunications department will be encouraged to make the execution more effective and efficient. Public television sets will be installed in isolated areas. In Sumatra a T.V. network is being tried.

In the film world, efforts are made to rebuild domestic film production. 16 mm. documentary, informational, news and entertainment films will be produced and distributed to the regions. Mobile film units will be provided along with 16 mm projector units.

Table XIII-B-1

FINANCING OF THE FIVE-YEAR DEVELOPMENT PLAN
INFORMATION
1969/70 - 1973/74
(in millions of Rupiah)

Field/Sector/Sub-Sector/Program	State Development Budget	
	1969/70	1969/70 - 1973/74
(1)	(2)	(3)
FIELD : SOCIAL		
Sector: INFORMATION	840 *)	5,147
1. Sub-Sector: Information	840 *)	5,147
a. Improving Popular Information Program	81	708
b. Development of Mass Media Equipment Program	509	4,439
Activities in information, of which the financing is calculated in other sectors:		
a. Education of Information Of-		

(1)	(2)	(3)
ficials (included in the Education and Culture sectors, Education and Institutional Research Sub-sectors).	46	375
b. Information Research (included in the sectors of Education and Culture and Sub-sectors of Education, and Institutional Research).	5	45
c. Physical Infrastructure Improvement (included the Public Administration sector, and Public Administration Sub-sector).	116	654

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*) Including Rp. 250,000,000.- project and technical aid to the information sector.

CHAPTER XIV

TRANSMIGRATION AND COOPERATIVES

A. TRANSMIGRATION

1. Problems

Transmigration problems can be viewed from two angles, from the point of population distribution and from the point of manpower supply for development.

Seen from the first point, the aim of transmigration is the achievement of a more balanced and equal population distribution throughout the Indonesian territory. This will necessitate moving a relatively large part of the people in Java to other islands which, at the present time, are short of inhabitants.

Viewed from the second point, transmigration means the transfer of labor to carry out various development projects in areas short of manpower. Here the main objective is not just the achievement of a more balanced and equal distribution but the supply of labor needed for the development projects required for the increase of national production.

Basically, the two aspects cannot be separated. In this Five-Year Development Plan transmigration must be linked with development projects. The size of labor force and funds needed, depends on the total manpower required for the implementation of development projects.

The primary focus is not the removal of people to other areas but the implementation of programs to increase national production. The location of projects in areas which happen to suffer from a labor shortage, is not, primarily, for the movement of population but for the achievement of a target, the increase of national production which can be reaped maximally by carrying out the projects in the areas selected.

2. Policies and Measures

In the framework of the Five-Year Development Plan implementation, transmigration is linked with development efforts and activities, and does not stand apart. Transmigration therefore, is to support development activities in certain areas and projects requiring a labor force.

Because of integrating the transmigration program with development efforts and activities, the quantity and type of migrants is in large part determined by the development requirements in the various regions. Development activities requiring manpower are, among others, the increasing of food production through the opening up of new land, mainly tidal rice-fields in Kalimantan and Sumatra, and the increase of production and export of timber and other forest products. The establishment of forestry projects in some areas outside Java requires transmigrated manpower that is already skilled as well as that still in need of special training in the field of forest industry. Further the increase of production and exports, which involves the rehabilitation and construction of infrastructure in several islands outside Java -- among others, road-upgrading, harbor rehabilitation, airfield rehabilitation, electric transmission constructuon, etc. --

requires that a relatively large labor force be brought from areas with surplus labor. The expansion of farming, estates, and fisheries also requires a great deal of labor. Of course the character of the manpower needed is different for each field. Even among projects the manpower skill needed will differ. It is, therefore, necessary to adapt the transmigration of manpower to the needs of development in the fields and projects mentioned.

In this connection, areas with a labor surplus must make adequate preparations so that migrants who will assist the implementation of projects in other areas, can meet the necessary requirements. For this purpose, training is needed to make sure they will meet the demands of their new jobs. In this way, transmigration activities will, really and directly, support the implementation of the development programs planned in various fields. This new foundation in the field of transmigration will be developed continuously, based on past experience and future possibilities. Due to the extensive preparations and activities that are required, various agencies and communities will be involved in the operational development. This demands proper preparation and suitable working procedures. Transmigration will certainly play a significant role in the implementation of projects given priority in the Five-Year Development Plan.

B. COOPERATIVES

Introduction

Cooperatives are the ordinary man's economic organization with a social character and particularly for groups with a very weak economic competence can be an instrument to protect its members from pressure and usury from outside, and increase their income, justly and equally.

In order that cooperatives can perform these functions, the effort so far made to bring them back to their pure basis, will be continued.

These efforts are based on the following:

(a) to give back the authority in cooperatives to members in accordance with democratic principles;

(b) to eliminate direct or indirect influences which can make cooperatives a political affair;

(c) to bring cooperatives back to their true base and principles, as economic enterprises as well as social institutions.

According to Article 37 of the Law No.12 year 1967 on Bases of Cooperatives what is expected from the Government in cooperative development is provision of guidance, control, protection and facilities, and help in implementing Article 33 of the 1945 Constitution.

The legislative bases for the development of cooperatives are:

(a) The 1945 Constitution, article 33 clause (1) and its explanation;

(b) M.P.R.S. Decree No. XXIII of 1966, and

(c) Law No. 12, 1967 on Bases of Cooperatives.

1. Situation and Problems

In the efforts to develop cooperatives the following problems will be encountered:

(a) a shortage of manpower to perform the task of conducting guidance and control, qualitatively as well as quantitatively;

(b) in-adequate understanding of the community and government elements about the place of cooperatives in the national economic structure;

(c) in-adequate awareness of members of the role of cooperatives as a fighting instrument to improve their living;

(d) The existence of various weaknesses such as a lack of education and knowledge on the part of cooperatives members, weak management, financing, etc.;

(e) the greater part of potential groups in the community, particularly farmers and fishermen, have not yet combined themselves in one or another cooperative organization.

At present, after being conformed to Law No.12, 1967 on Bases of Cooperatives, the estimated total of cooperative meeting the requirements is about 15,000. This means that the number of cooperatives eligible to continue in existence is around 20-25 per cent of the 1967 total.

There has been, in these last five years, an average annual increase of 10 per cent. Under the same conditions, cooperatives in the next five years will also make an annual 10 per cent progress. However, the population growth and the rehabilitation of cooperatives that have been affected by the screening mentioned above will enable cooperatives to achieve an annual growth of more than 10 per cent. In 1967, the number of cooperatives, according to type, was as shown in Table XIV-B-1.

2. Policies and Measures

In line with the development program, cooperatives showing good prospects for further existence will be taken care of, guided and protected. For this purpose, various activities will be conducted such as establishment of guidance courses and provision of certain facilities needed for their progress.

In the first stage, activities will be geared to programs that have proirity in the Five-Year Development Plan, particularly in the agriculture sector, and will emphasize education and information, organizational expansion and control, guidance, cooperative endeavours and the provision of facilities for credit, taxes and activities.

It is hoped that cooperatives will develop, year by year, as noted in Table XIV-B-2.

2.1 Education, Guidance and Research

The objectives of education, guidance and research are:

(a) to implant and broaden cooperative-mindedness among all levels and groups of the society;

(b) to increase the knowledge of the community about cooperatives;

(c) to increase the skill in cooperative affairs of members and staff personnel;

(d) to form and develop cooperative cadres;

(e) to obtain a clear and scientifically reliable picture of the situation of cooperatives in Indonesia.

Because of existing social, economic and psychological obstacles in the society, the Government will accelerate the growth process of cooperatives by providing care, guidance and information, conducting control, education and extension services. Up to now the shortage of Cooperatives cadres is still felt, quantitatively as well as qualitatively. The formation and development of cadres is also felt to be ineffective. In addition, the personnel for guiding, developing and controlling activities in government circles, particularly those active in the cooperative movement, are not quite able yet to perform their duties because of the ineffectiveness of upgrading, training and in-service training courses.

As the formation of cooperatives cadres so far can not keep pace with the progress of the cooperative movement, the system of educating cadres will be changed, by revising Se-

Table XIV-B-1

SITUATION OF COOPERATIVES ACCORDING TO TYPE
1967

Type	Total	Members
Lending-saving	11,096	1,510,951
Service	2,540	355,613
Agricultural	12,387	1,157,351
Stock breeding	315	21,519
Craft and Industrial	2,934	243,220
Consumption	14,400	3,436,614
Miscellaneous	19,324	5,351,791
Grand Total :	64,096	12,197,346

Table XIV-B-2

DEVELOPMENT OF COOPERATIVES
1969 - 1973

Year	Total	Members
1969	15,000	2,250,000
1970	16,000	2,500,000
1971	18,000	2,750,000
1972	20,000	3,000,000
1973	22,000	3,400,000

nior Secondary Cooperative Schools (SKOPMA) into Senior Cooperative Economic Highschools, and making Cooperative Academies function as in-service training institutes for the personnel of the Directorate General for Cooperatives.

2.2 Development of Organization and Control

Following steps will be taken:

(a) To give legal status to and register cooperative organizations, in accordance with Law No.12 of 1967 on Bases of Cooperatives;
(b) To develop the organization of cooperatives and the Indonesian Cooperative Movement (GEKOPIN), following the "guiding and loving leadership" method;
(c) To carry out consolidation and rasionalization in order to foster a healthy mental attitude, organization and efforts;
(d) To conduct education in management, bookkeeping and control of cooperatives;
(e) To exercise control, of an educative and guiding character, over the bookkeeping of cooperatives;
(f) To collect more statistical data about cooperative organizations and movements throughout Indonesia.

2.3 Guidance for Cooperative Undertakings

Following steps will be taken:

(a) To supply sufficient number of cadres who, at any time, can readily serve cooperatives;
(b) To provide tax and credit facilities to cooperatives and freedom to move in the field of production and services;
(c) To create a profitable climate for the cooperative movement;
(d) To establish a Credit Guarantee Foundation for Cooperatives.

CHAPTER XV

NATIONAL DEFENSE AND SECURITY

1. General

Development of national defense and security cannot be separated from national development as a whole. On the one hand, national development is aimed at the promotion of the nation's prosperity; on the other, the nation's prosperity should be secured against every form of threat which will disturb it, or even, in an open war might destroy it. Therefore, a force is necessary to oppose whatever threatens the survival of the nation, and with armaments adequate to foil those threats.

The basic strength of national defense and security is the armed forces; and even though the factors in it are various in their kind, it is the armed forces which holds the most important role, and should be developed and expanded in order to be able to defend and to protect the nation against any form of threats.

2. National Defense and Security

2.1 Policy of national defense and security

Basically, the policy of national defense and security is aimed at the following targets:

a. Inwardly, to create an atmosphere which is secure, peaceful, orderly, and dynamic, to form the basis and climate for carrying out development in every field.

b. Outwardly, to participate in securing world peace and realizing stability in South East Asia.

c. To be alert to every possibility of threat in any form which might disturb or endanger the survival of the nation and the state.

2.2 Strategy of national defense and security

Strategy in this area is directed toward shaping, developing, and making full use of the powers of the security forces to guarantee the realization of national defense and security policy.

2.3 Functions of national defense and security

a. To establish a national defense and security force, with the armed forces as the central component in addition to other potentials.

b. To maintain and to improve national defense in all fields, ideological, political, social, and cultural as well as military.

c. To maintain and to improve national vigilance and preparedness.

d. To develop integration between the armed forces and internal integration within the respective forces.

3. The Civic Mission of the Armed Forces of the Republic of Indonesia

As a result of the struggle of the armed forces to maintain independence and the value of life, they have a position and role as the authoritative functional group to decide the course of the nation together with the other social forces.

The main civic task of the armed forces during the development period is to actively participate in every effort, endeavor and activity of country and nation in the field of development, in accordance with its capabilities.

4. Condition Evaluation

The condition of the economy at present is the main limiting factor in the development of national defense and security. Until 1973/74, the nation's resources will only be sufficient to finance economic development while for defense the funds will be very limited.

However, there should be a force sufficient to protect development from anything that threatens it.

The possibility of an external attack is at present very minimal.

The possible threats that would trouble development implementation are more likely to take the form of espionage, sabotage, infiltration, subversion, and rebellion, whether from within the country or from outside.

Therefore, optimally, the national defense and security forces should have the power to oppose threats of this nature, and to eliminate all their negative effects, without neglecting necessary preparedness against external attack.

The Indonesian armed forces, as the essential arm of national defense and security, needs time to consolidate and stabilize itself after the effort of fulfilling the Trikora and Dwikora and of maintaining peace and order in the country. Consolidation and stabilization will form a basis for further progress. As a civic action force, the armed forces, in view of present conditions in the political, economic, social and cultural fields, is reviewing its role and function in order to contribute to development efforts in every field.

5. Main Policy

As carrying out of development in national defense and security is severely limited by lack of funds, it must be approached in accordance with the existing situation. In the round of development for the coming five years the accent falls on the following :

5.1 Conceptual matters

a. Settlement of a basic law for national defense and security and necessary regulations.

b. Further settlement of the concept of our national strategy.

c. Decisions on the size and composition of the land, sea, and air forces and the police.

d. Development of an armaments system that is social as well as technological, a military equipment industry and construction authority.

e. Establishment of a system of command and control.

f. Establishment of a system of administration, logistics, personnel and education.

g. Establishment of a system of endurance training.

h. Decision on levels of preparedness for particular periods, especially during the implementation of the Five-Year Development Plan.

i. Establishment of a program of consolidation and stabilization.

The above conceptual basis is necessary for determining the course of further defense and security development.

5.2 Within the framework of the consolidation and stabilization of the defense and security forces, and of providing security for the national development efforts as well as in the area of the concept of our national strategy, a regrouping of forces is being carried out along with selective replacements of personnel and equipment to improve the quality of the armed forces in general.

5.3 Within the framework of the function of the armed forces, a full review will be made of problems connected with their function as a social force.

5.4 To place once more in proper proportion the conception and execution of civic action under the Indonesian Armed Forces' Civic Mission.

5.5 Development enterprises in other sectors that are carried on by the armed forces will be restricted to those which cannot be done by civilians.

6. Measures

1969/70 1. Settlement of conceptual plans.
1970/71 2. Realization of preparedness at the decided level.
3. Carrying out of consolidation and stabilization of forces.
1971/72 1. Realization of preparedness at the planned level.
1972/73
1973/74 2. Realization of conceptual plans.
3. Carrying out of a phased transfer of duty for soldiers linked to development activities in other sectors.
4. Preparation for carrying out the development of the defense and security forces in the second five-year plan.
5. To continue the consolidation and stabilization of forces.

<table>
<tr><th>1969/70</th><th>1970/71</th><th>1971/72</th><th>1972/73</th><th>1973/74</th><th>1974/75</th></tr>
<tr><td colspan="5">Realization of the Five-Year Development Plan is
↔
the Realization of Defense and Security Development Infrastructure</td><td rowspan="3">SECOND FIVE-YEAR
DEVELOPMENT PLAN</td></tr>
<tr><td colspan="3">Settlement of Matters
↔
1. Legal/Conceptual.
2. Consolidation and Stabilization of Forces.</td><td colspan="2">Realization of Plans
↔
1. Structure of forces and commanding and controlling system.
2. System of logistics and the construction of technological armaments system.
3. Replacement of personnel and equipment (selective, limited).
4. Carrying out job transger of soldiers.
5. Re-structuring of the function of the armed forces.
6. Control of civic actions.
7. Integration of the armed forces, fundamentally and conceptually.
8. Realization of the function of the armed forces, fundamentally and conceptually.
↔
Preparation for the further development of Defense and Security.</td></tr>
</table>

CHAPTER XVI

RESEARCH AND STATISTICAL DEVELOPMENT

A. RESEARCH

1. The situation at present

It is a fact today that the proper application of science and technology in the development of a country can accelerate efforts to increase the welfare of the people. Therefore it is necessary to develop and expand scientific resources that they may be utilized in the interest of the country's development.

Furthermore, particularly in developing countries, the extensive application of the science and technology now available, which result from foreign research, is the shortest way toward social progress. An evaluation of science and technology at present can be based on: 1) the conditions of scientific infrastructure, and 2) qualitative evaluations.

The evaluation of scientific infrastructure is based on the number of scientific and technological experts, especially those working in the field of research, on the number of scientific and research institutions engaged in scientific activities and their physical condition, i.e., the condition of their scientific instruments, scientific materials, their literature, and the funds available and used in the interest of science and technology.

A qualitative evaluation concerns values that are related to scientific results (such as: the scientific value of these results), besides the quantity of scientific articles produced. Moreover, the stage of science and technology in a country is measured also by the speed with which scientific and technological discoveries are put into practice.

The collection and evaluation of quantitative data is still incomplete. In the future data collecting must be carried out regularly and the method of evaluation, especially, must be improved. What will be presented below is based on data that can be compiled so far. It should be remembered that there are still many scientific and research institutions or organizations which do not feel the need to collect quantitative data.

2. Scientific Organizations in Indonesia

In our country scientific activities are carried out by:

(i) research institutions within ministerial Departments;
(ii) universities;
(iii) research institutions outside the Departments or non-departmental institutions.

a. Research conducted by research institutions within the Departments is primarily aimed at solving technical problems and at rendering assistance in the execution of the work of the relevant Departments. In this way research that is being carried out is more tuned to the respective Departments; in other words, it is more "mission-oriented". In some institutions testing and control are also carried out.

b. Within the universities basic research and applied research are carried on that are closely related to the function of educating scientific personnel. Furthermore, in the effort to realize their three-fold function, universities are directing their research toward solving the problems and satisfying the requirements of society. Among universities themselves a distinction is made between three categories, i.e. Feeder Universities, Intermediate Universities and Junior Colleges. In this classification, research is being done primarily by the Feeder Universities.

c. To this categorie belong research institutions within the Institute of Sciences in Indonesia (L.I.P.I.) and the National Atomic Energy Commission. Then there are the State Administration Institute, which is engaged in scientific activities, and the Central Bureau of Statistics, which plays an important role in the statistical world in our country. Research being conducted by these organizations is not just limited to serving the interest of one particular department alone, but tackles problems in a broader manner.

d. Scientific and Technical Manpower

Quantitatively, the total number of graduates from national universities is sufficiently large. In a Report of the Statistical Team of Higher Learning in 1967 it was stated that the number of graduates from 24 State Universities (out of the existing 40 State Universities) from 1950 to 1967 was 21,832 specified into:

Exact Sciences	:	11,050
Non-exact Sciences	:	9,345
Teaching Science	:	1,417

Total:		21,832

Universities are the primary source of high-level scientific manpower working in the field of research. But in order to become a qualified research scientist a long period of time is required with the consequence that the field of research is always short of workers. From surveys and other data issued in one or another form of research report, several points can be mentioned:

(i) the number of research workers and technicians in some fields of research is minimally adequate, if this number is related to the research activities being undertaken by the respective research institutions at the present time (although other standards of measurement must still be applied).

(ii) There is a shortage of research workers and technicians if the institutions concerned are to fulfill their task as research institutions well.

(iii) There is a great need for experienced research workers i.e., those from whom can be expected advice and instructions for the implementation of research.

(iv) A great need is being felt for experts, who are specialists in a certain field, such as scientific documentalists.

Then there are several factors to which the continuing need of research for experts can be ascribed namely:

(i) the economic situation, which makes it impossible for a research worker to give his full attention to research;

(ii) lack of proper remuneration of a research worker, so that research cannot be regarded yet as a working field, in which a person could make a career;

(iii) the need for capable persons in government and other sectors, which causes a drain in the field of research and other scientific activities.

Twenty research institutions, which have returned a questionnaire, have stated that they are in need of 645 research workers, who fall under the following categories:

medical science 12, physical sciences 86, technical science 433, agriculture 13, social science 6, no specification 97.

3. Scientific Literature

Scientific Literature, i.e. scientific books and periodicals, as well as microfilms constitute one of the important resources for the conduct of research of high quality. But since 1958, that is since the introduction of stronger restrictions on the use of foreign exchange, the purchase of scientific literature from abroad has been limited.

With aid from several foreign organizations the difficulty in getting scientific books for the country has to a small extent been overcome.

However, subscriptions to scientific periodicals from abroad has remained an acute problem. Besides that the decreasing number of Indonesian scientific publications, which is due to various reasons (see below), has made an exchange program of periodicals ineffective. This situation obviously handicaps the flow of the most recent results in the fields of science and technology from abroad. The absence of up-to-date knowledge on the progress of science and technology leads to the possibility of duplications in research, i.e. repetitions of things already done or facts already known. This is a waste of manpower, funds and time.

4. Scientific Information and Communication

Scientific publications are an important media for scientific information and communication at home. The decline in the number of scientific books and periodicals being published may be caused by : i)slackened research activities, ii) high costs of printing which have forced a cessation or cut in the publication of scientific periodicals.

The high cost of printing has resulted in the emergence of publications or reports on surveys and research in mimeographed form. But the quantity of, as well as the fields covered by, the reports is difficult to ascertain. This is due to various reasons, among them:

(i) the number of mimeographed reports is quite limited, about 500 only,
(ii) the reports are sent to persons who are thought to need them and not to libraries,
(iii) there is no government body appointed to take care of keeping the "copy-righted" and other government publications,
(iv) there is no organization charged with keeping a register of publications that can be used by individuals who want to know of materials and reports that have been written in their fields.

Theses for graduate degrees and dissertations for doctorate degrees are not regularly reported to the Directorate General of Higher Education with the consequence that it is difficult to know what has already been written.

The decline in the frequency of domestic publications and the retarded flow of information has resulted in limited knowledge of research being conducted in various institutions, with the result that the probability of duplications becomes greater.

Scientific conferences, seminars, etc., either at home or abroad, constitute important media for scientific communication. Such meetings enable exchanges of ideas and knowledge on progress made in the respective fields.

The country's economic situation allows for only a limited opportunity for Indonesian scientists to attend scientific conferences abroad.

Communication between research institutions and the users of research results is an important factor, since the influence of research and development on the economy depends on putting the results to use in new industrial products, to increase production in agriculture, etc. In this, the extension worker and an adequate supply of funds to experiment with the use of new discoveries or new methods play a most significant role. In this connection investigation into the influence that research has on the country's economic development and on bottlenecks in the flow of research results to the users is needed.

5. Scientific Instruments

Suitable and modern scientific instruments are important to research activity. Surveys and reports on this matter have brought out, among other things, the following points :

(i) institutions which have not been affiliated with, nor received any aid from, foreign organizations since 1958 have almost no new scientific instruments or replacements;

(ii) the unavailability of foreign exchange for the replacement of worn out or used-up materials and for the purchase of needed chemicals has forced research activities to end or suffer delays;

(iii) for newly created institutions, the problem being faced is how to get scientific instruments, materials and chemicals;

(iv) the maintenance and repair of scientific instruments, whether for larger or for smaller damages, requires skill in certain special fields. But it may happen that the instruments cannot be repaired, because of lack of the necessary spare parts.

Thus, while we still must think about how to get the most common scientific instruments, raw materials and chemicals, other countries have made further advances in their equipment. This situation is a handicap for some research activities or delays them. The history of science and technology shows that up-to-date scientific instruments constitute one of the factors contributing to intensive research, which leads to significant findings.

6. Space Facilities

a. The availability of space, which is minimally adequate for the conduct of research activity is a factor that can contribute to enthusiasm for work. For long-existing institutions the problem is how to maintain and/or expand the existing space.

b. For new institutions the problem is how to meet the minimum need for working space.

7. The Condition of Research in Indonesia

It must still be investigated how far research results have found practical application and to what extent they influence the development of society. Meanwhile some points may be noted :

a. In the field of health, results of research may be more rapidly put into practice. This is primarily due to the fact that those doing research, i.e. schools of medicine, can apply them at once in their daily practice. New findings are important contributions to medical science, especially to the promotion of public health. Aid from international organizations will make possible effective eradication of many social diseases. In the pharmaceutical field much research still needs to be done on the possibility of using materials found in our own country.

b. In the field of agriculture, apart from a large number of technical problems that have to be tackled, social and economic factors play an important part in the application of modern technological results. These factors include:

(i) the farmers lack of capital to risk on experimenting with the application of new findings,

(ii) the problem of marketing,

(iii) the problem of infra-structure,

(iv) extension work and various other social factors, such as tradition, etc.

c. It has been said that we are thirty years behind in the field of industry and technology. This is due to, among other things :

(i) slow progress and inadequacy of industrial research,

(ii) lack of scientific attitude in the field of industry,

(iii) the absence of adequate capital to carry out experiments on new industrial applications,

(iv) the problem of marketing of domestic products.

In addition, social and economic factors play an important role.

d. Social science plays an important part in our national development, not only as an instrument for discovering new knowledge, but also to enable us to take what steps are needed within the society. The social sciences can obtain the information that is needed to better understand the condition, implications, and goals, or changes that are necessary for a society before an important decision is published The facts show that research being carried out by the various branches of the social sciences can not yet produce the information or data needed in our society.

e. In planning for development, statistical data constitute urgently needed instrument. It is a fact that in the past, and also at present, statistical data generally are :

(i) not complete,

(ii) limited in their presentation,

(iii) often presented in duplications,
(iv) wanting in reliability,
(v) very slow in their compilation.

These things have caused planning to be hampered by difficulties in acquiring the necessary data. This situation is due to a number of factors, besides lack of statistical experts, facilities and funds :

i) There is no favorable climate yet for an intensification of statistical activities or for an improvement in the quality of statistical methods.
ii) There are no formulations yet of the specification, standardization and classification of various statistics which are oriented toward the development of Indonesia; this has resulted in the fact that some aggregate statistics cannot yet be compiled, etc.

Qualitative evaluations has still to be improved before we can arrive at a more objective analysis in order to know the level of scientific knowledge and technology in our country and to find the bottlenecks in our efforts to promote them and to apply them in the society. The availability of this knowledge will enable us to determine more precisely the targets of development.

8. The Problems being faced

Research should be directed toward successful implementation of the Five-Year Development Plan, which includes the following sectors :

a) intensification and extensification of agriculture, animal husbandry, estate farming and forest exploitation,
b) the development of agriculture-related industry,
c) the development of light industry,
d) the development of medium-sized industry which meets the needs of the above-mentioned a, b and c.

e) the development of infra-structure and communications,
f) the planning of heavy industry for the next stages of development.

For the successful execution of this program it is necessary to carry out research of high quality. The implementation of research of this kind is a most crucial problem today, since factors must first be created that support such research activities.

These factors, among other things, are :

a. a political as well as an economic climate, which provides an opportunity for the development of research activities and for the application of research results,
b. up-to-date scientific literature,
c. adequate funds,
d. research workers and technicians that are adequate in the qualitative as well as in the quantitative sense.

Indonesia is a developing country in the field of technology, while its industries are still backward and there is an absence of basic industries. Considering all these factors, efforts toward the acceleration of activities and toward the achievement of research of high quality within the scope of the realization of the Five-Year Development Plan should be aimed at improving the scientific infra-structure and at raising the status of scientific resources, that is, by providing the necessary manpower for research and technicians, both in the quantitative and in the qualitative sense, scientific literature, scientific instruments, and the creation of a scientific atmosphere within the society.

In giving direction to research activities it is necessary to give priority to applied research without disregarding the conduct of basic research, which is still needed now as a basis for applied research. In this context atomic research should be given due attention.

9. Direction

In order that research really include activities which not only support the process of the Five-Year Development Plan, but also serve as a basis for future development efforts, in the period of the Five-Year Plan attention will be concentrated on :

9.1 The Rehabilitation of Existing Research Institutions

To make a start on the exercise of research efforts of high quality within the first period of the Five-Year Development Plan, during the first years priority will be given to the rehabilitation of existing basic facilities, so that research institutions will be able to fulfill their task well, i.e. :

a) a fair supply of scientific instruments, chemicals and basic materials. For the time being those materials have still to be imported, so that foreign currency must be provided for this purpose;

b) scientific literature, especially up-to-date periodicals from abroad. In order to meet these needs also sufficient foreign exchange must be supplied;

c) the upgrading of research workers and technicians and a gradual increase of their number;

d) the provision of adequate funds for research activities.

A continuous survey of the condition and needs of research institutions must be conducted. In the past the development of research institutions did not follow any particular design, based on actual needs. Therefore, at this time, an appropriate evaluation should be made of their right to exist and in the future new research institutions should be established in such a way that they will be able to carry out their function, which is really useful, and that the possibility of duplications will be avoided as much as possible.

After the rehabilitation of existing research institutions, consistent attention must be given to :

9.2 The Training of Scientific Manpower and Technicians

It takes a long time to obtain scientific manpower and technicians. The upgrading of the level of their knowledge of research methods and new methods of approach should be carried out regularly. Meanwhile dedication to research work must be nurtured.

The quality of these workers very much depends on the education they have received. For this reason attention must be given to science education at the secondary school and university level.

A continuous survey should also be made in the future of the number of scientists and technicians, the fields of their expertise, their distribution and the work they are doing, and of the need for these workers.

Apart from the above-mentioned points, those who work in the field of research must be given the opportunity to concentrate their attention on their main job.

9.3 Expansion of Communication and Information in the Field of Science and Technology

In addition to efforts to secure continuity in the flow of scientific information from foreign countries, it is necessary to accelerate production of domestic scientific publications. Due attention should be given to reducing printing costs for scientific publications at home.

Information in the field of science and technology can play an important role in the development of our industry by speeding information to industrialists on new inventions in their respective fields acquired either at home or abroad.

In the case of exchange of information through scientific literature, attention should be directed primarily toward existing information centers. In this respect the National Center of Scientific Documentation of the Institute of Sciences in Indonesia (L.I.P.I.) plays an important role.

The holding of scientific symposia, seminars, congresses, etc., is a most common thing in the realm of science as a medium for exchange of information. Such communication activities should be intensified and expanded by sponsoring scientific meetings, national, regional or international.

9.4 Scientific Instruments

Up to the present time, scientific instruments, basic materials and chemicals that serve the interest of research have still to be imported. Therefore, research efforts directed toward the production and repair of such instruments must be augmented. In this respect the National Instrumentation Institute of L.I.P.I. can play an significant role.

A continuous survey must be conducted of the location, situation and use of scientific instruments in Indonesia, especially those that are specifically scientific.

B. THE DEVELOPMENT OF STATISTICS

Introduction

The prime aim of the program in the field of statistics is to develop the data for assessing progress and forecasting difficulties in the specific sectors. It is clear that statistical data collection, within the context of the Five-Year Development Plan of 1969 - 1973, is high on the priority scale of the Plan.

Since the basic problem of Indonesia during this Five-Year Development Plan is food, statistical data in this sector will get prime priority. This key area includes data collection concerning agricultural areas, crop areas, and production per hectare. Such data are especially important for rice production, in order to determine the programming of rice import at definite times when needed, the storage requirements, etc.

The agricultural census, based on a large sampling program, is also important as a source of data on the relationship between the input and output factors. So is the case with population census and social economic surveys all of which constitute important activities in the field of statistics.

1. Agriculture

Agricultural data on farm-areas, crops, products, etc., are usually obtained through agricultural and statistic extension workers in villages. These data are sent to the Central Bureau for Statistics in Djakarta via District and Governors offices.

Although this system has been used for long, it is clear that two aspects of it will have to be improved, those are:

1) The time of the delivery of those data will be improved so that data could be collected within the month for which it pertains, and it will reach the Central Bureau for Statistics in the following month.
2) A cross checking of the reliability of the data will be made, for instance by using a sampling system. For this purpose an experimental project has been set up in Jogjakarta.

With the various existing programs to increase production, among others by the "BIMAS" (Mass guidance system), great variation in outputs may be expected. It is necessary therefore to improve the system of production-estimate by increasing the number of sampling-plots and a better organization of the sampling effort. The collection of data on rice output is essential. Hardly less important is the collection of data on other food crops, such as corn, beans, etc., which can also be collected by way of sampling.

Since 1953 there has been practically no surveys made regarding smallholder plantations, which have been estimated to produce 2/3 of the entire rubber production of Indonesia and 80 % of Indonesia's copra production. Providing these statistical figures will have priority in the area of export crops. The surveys will be incorporated in the village statistical data collection.

2. Population Census

No less important than the field of agricultural statistics and agricultural census, is the population census. The population census is important for the following reasons:

1) To supply correct figures for the present size and composition of the population;
2) In connection with preparation of the electoral rolls for the general elections;
3) To serve as a frame for other statistical purposes (to determine population distribution);
4) As a means of checking of other surveys, the social economic surveys, etc.

3. Social Economic Survey

Social economic surveys will be held every year to supplement the periodic population census. The questions posed every year in the survey sheet need not be identical, but they will include data needed for the national income estimates.

4. Industry

Priority also is given to the industrial census suggested to be held after 1974. Surveys suggested in this field are those in connection with large and small industries. (Note: Small handicraft industries are included in the social economic surveys).

5. Trade

Not less important are the figures in the field of trade. In developing our statistics, we should at the minimum perfect the statistical data on export and import volumes and prices.

Price statistics will emphasize the price development of basic and essential goods with high priorities (such as fertilizers, insecticides, etc.). Especially in regard to these essential goods, research are to be made concerning the classification of these goods.

6. Village Statistical Data

It is necessary to improve village statistical data on birth, death, population increase, farm area, livestock, handicraft etc.

There are three possibilities for improvements:

1) The present, permanent system, but with training and improvement of the enumerators;
2) By the use of "independent sampling" of every district or village;
3) By making use of one sample from several villages to be used as a baseline for a greater area.

All three of these possibilities are still being studied.

7. The Organization of Statistics

The Central Bureau for Statistics collects statistical data from its own field staffs as well as from departments. Some positive aspects in the field of statistics are:

1) The existence of the Law on Statistics of 1960;
2) The existence of a training program - the Academy of Statistical Sciences;
3) The existence of branches throughout most of Indonesia (3,000 in sub-district levels);
4) The existence of previous censuses (population census in 1960; agricultural census in 1963).

The most important thing is to place the Central Bureau for Statistics closer to the center of Government's operations. The improvement of statistical data constitutes an important part of the Five-Year Development Plan.

According to the Basic Law on Statistics 1960, the Central Bureau for Statistics is to carry out the co-ordination of statistical data collection. For this purpose consultations must and will be held with Departments directed toward the development of national statistics.

THE FIRST FIVE-YEAR DEVELOPMENT PLAN

(1969/70 - 1973/74)

Volume 3

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TABLE OF CONTENTS

VOLUME III

PRESIDENTIAL DECISION No. 319/1968 vii

FIVE-YEAR DEVELOPMENT PLAN:
CONTENTS OF COMPLETE SERIES xi

SPECIFICATION ACCORDING TO REGIONS 1

1. Atjeh 5
2. North Sumatra 11
3. West Sumatra 18
4. Riau 24
5. Djambi 30
6. South Sumatra 35
7. Bengkulu 42
8. Lampung 46
9. West Java 51
10. Special Territory of Greater Djakarta 59
11. Central Java 65
12. Jogjakarta Special Territory 73
13. East Java 78
14. West Kalimantan 86
15. Central Kalimantan 91

16. South Kalimantan 96
17. East Kalimantan 101
18. North Sulawesi 106
19. Central Sulawesi 110
20. South Sulawesi 114
21. Southeast Sulawesi 119
22. Bali 123
23. West Nusatenggara 128
24. East Nusatenggara 132
25. Maluku 137
26. West Irian 141
    A. Introduction 141
        a. Short-term Targets 141
        b. Long-term Targets 141
    B. Sectoral Policy 142
        I. Communications 142
        II. The Social Sector and Public Administration 143
        III. The Production Sector 143
        IV. The Public Utility Sector 144
    C. Expenditures 144

LIST OF MAPS

Legend 3
Atjeh 10
North Sumatra 17
West Sumatra 23
Riau 29
Djambi 34
South Sumatra 41
Bengkulu 45
Lampung 50

West Java 58
Central Java 72
Jogjakarta Special Territory 77
East Java 85
West Kalimantan 90
Central Kalimantan 95
South Kalimantan 100
East Kalimantan 105
North Sulawesi 109
Central Sulawesi 113
South Sulawesi 118
Southeast Sulawesi 122
Bali 127
West Nusatenggara 131
East Nusatenggara 136
Maluku 140
West Irian 145

Central Java

Jogjakarta Special Territory

East Java

West Kalimantan

Central Kalimantan

South Kalimantan

East Kalimantan

North Sulawesi

Central Sulawesi

South Sulawesi

Southeast Sulawesi

Bali

West Nusatenggara

East Nusatenggara

Maluku

West Irian

[illegible]

[illegible]

[illegible]

North Sumatera

West Sumatera

Riau

Jambi

South Sumatera

Bengkulu

Lampung

PRESIDENTIAL DECISION No. 319
OF THE YEAR 1968
CONCERNING
THE FIVE-YEAR DEVELOPMENT PLAN

THE PRESIDENT OF THE REPUBLIC OF INDONESIA

Considering : 1. that it is the aim of struggle of the New Order to raise the standard of living of the People of Indonesia, which aim can only be achieved by carrying out development by stages and according to plan;

2. that the results which have been achieved under the program of political and economic stabilization, have at present become a basis for the implementation of development which is strong enough;

3. that based on MPRS Decree No. XLI/MPRS/1968, the task of composing and implementing the Five-Year Development constitutes one of the duties of the Development Cabinet;

4. that the Government has, at present, succeeded in composing the Five-Year Development Plan 1969-1973, which will become a basis and guide for the Government in carrying out above-mentioned MPRS Decree from year to year;
5. that based on above-mentioned considerations, it is deemed necessary to issue a Presidential Decision to authorize the Five-Year Development Plan 1969-1973;

Having in mind : 1. Article 4 (clause 1) of the 1945 Constitution;
2. MPRS Decree No. XLI/MPRS/1968;
3. Presidential Decision No. 183 of the year 1968;

Having heard : The considerations of the National Development Planning Board and deliberations during sessions of Cabinet;

HEREBY DECIDES

To enact : A DECISION OF THE PRESIDENT OF THE REPUBLIC OF INDONESIA CONCERNING THE FIVE-YEAR DEVELOPMENT PLAN 1969-1973:

Article 1

The Five-Year Development Plan as contained in Volume I, II and III of the annex to this Presidential Decision constitutes a basis and guide for the Government for the implementation of the Five-Year Development as has been char-

ged by MPRS.

Article 2

Implementation policies of the Five-Year Development Plan will be molded into Annual Plans which are reflected in State Budget and other policies.

Article 3

The molding into Annual Plans as meant in Article 2 of this Presidential Decision, is carried out while considering possibilities for changes and developments in the situation which necessitate adjustments of the Five-Year Development Plan.

Article 4

This Presidential Decision comes into force on the day of enactment.

Enacted in Djakarta,
On the Thirtieth Day of December 1968.

PRESIDENT
OF THE REPUBLIC OF INDONESIA
(sgd.)
SOEHARTO
General of the TNI

FIVE-YEAR DEVELOPMENT PLAN
1969/70 -- 1973/74

CONTENTS OF COMPLETE SERIES

VOLUME ONE
General

Chapter I : Aim, Target and Policy
Chapter II : Financing the Plan
Chapter III : International Balance of Payments
Chapter IV : Regional and Rural Development
Chapter V : Government Administration, Plan Implementation and Annual Operational Plan

VOLUME TWO-A
Plan According To Fields

Chapter VI : Agriculture and Irrigation

VOLUME TWO-B

Chapter VII : Industry, Mining and Electric Power
Chapter VIII: Communications and Tourism

VOLUME TWO-C

Chapter IX : Religion
Chapter X : Education and Manpower
Chapter XI : Health and Family Planning
Chapter XII : Housing and Social Welfare

Chapter XIII: Justice and Information
Chapter XIV : Transmigration and Cooperatives
Chapter XV : Defence and National Security
Chapter XVI : Research and Statistical Development

VOLUME THREE

Specification According To Regions

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SPECIFICATION ACCORDING TO REGIONS

Chapter XIII: Justice and Information
Chapter XIV : Transportation and Cooperatives
Chapter XV : Defence and National Security
Chapter XVI : Research and Statistical Development

Specification According To Regions

LEGEND

◎	IRRIGATION PROJECTS: including expansion of irrigation network, tidal rice - fields, swamp and river - basin development
●	FORESTRY PROJECTS: including forest products industries and forest development
□	FISHERY PROJECTS: including rehabilitation/upgrading of fishery harbours and fishing
■	SEAPORT INFRASTRUCTURE PROJECTS: incl. rehab./upgr./expansion of quays, godowns, salvage of wrecks, back log dredging, maritime, telecommunication
▲	AIRPORT INFRASTRUCTURE PROJECTS: incl. rehab./upgr./ expansion of airstrips and airport facilities,
✦	POWER GENERATION PROJECTS: incl. water power (PLTA), diesel (PLTD), steam (PLTU) and gas (PLTG) electric generation
—	REHABILITATION/UPGRADING OF ROADS PROJECTS: incl. state roads and important provincial roads
╫╫╫	REHABILITATION/UPGRADING OF RAILWAYS PROJECTS: including changing to rails R.14
--→	PROJECTS OF LONGDISTANCE TELECOMMUNICATION: including microwave; radiowave ; troposcatter

M	OIL MINING PROJECTS
Sn	TIN MINING PROJECTS
Al	BAUXITE MINING PROJECTS
Ni	NICKEL MINING PROJECTS
P	FERTILIZER INDUSTRY PROJECTS
S	CEMENT INDUSTRY PROJECTS
K	PAPER INDUSTRY PROJECTS
T	TEXTILE INDUSTRY PROJECTS incl. spinning, weaving, etc.
⬡	VOCATIONAL EDUCATION PROJECTS
⬢	HEALTH FACILITIES IMPROVEMENT PROJECTS

S	SULPHUR MIN PROJECTS
Au	GOLD MINING PROJECTS
Cu	COPPER MINI PROJECTS
A	ASPHALT MIN PROJECTS

1. PROVINCE: ATJEH

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and Second Foodcrops *)		
Intensification of Foodproduction		
Intensification of extension service		
Estates		
Improvement of smallholder estates and processing units		
Extension of oil palm plantation		
Rehabilitation of rubber estates		
Fishery and Forestry		
Improvement of fishing harbors	Pidi	
Flood and erosion control		Reforestation
Increased production of forest products		foreign capital
Animal Husbandry		
Protection, research and mass extension services		

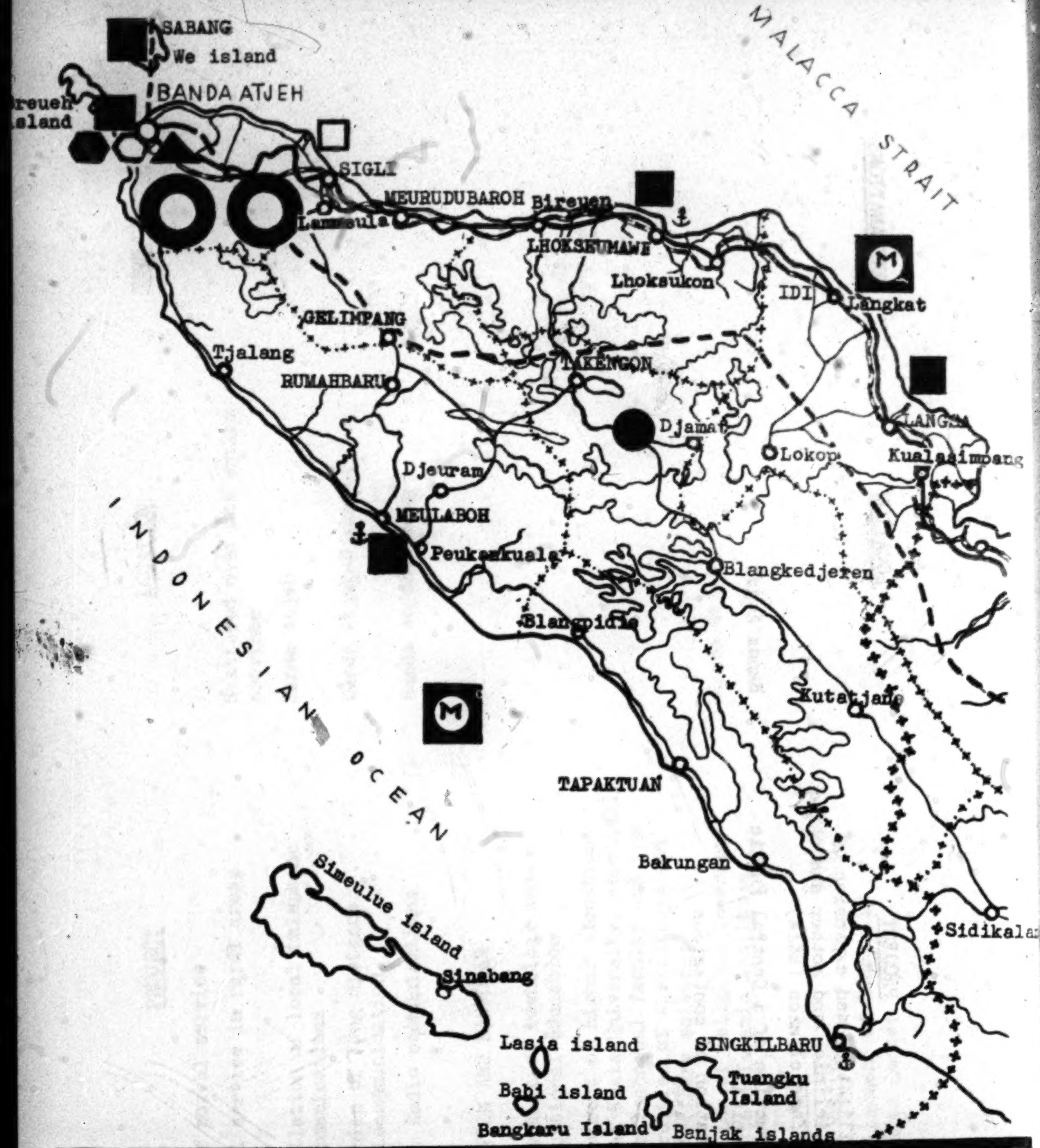
*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Irrigation		
Rehabilitation and extension of irrigation projects	Krueng Djrue Krueng Baro	
Village irrigation water pumps		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and improvement of light industries and home industries and processing of agricultural products		
Mining		
Petroleum and natural gas	Off-shore	Foreign capital investment
Electric Power		
Increase of installed electric energy		
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges	Certain state/provincial/ regency roads	
Takengon highway	Bireuen-Takengon	

PROJECT	LOCATION	EXPLANATIONS
Air Communications		
Rehabilitation/upgrading and installation of air telecommunications and navigational aids	Banda Atjeh	
Rehabilitation and upgrading of airfield	Banda Atjeh	
Meteorological station	Banda Atjeh	
Sea Communications		
Salvage of wrecks		
Navigational telecommunications	Olele-Lokseumawe, Meulaboh	
Buoys/beacons and coastal lights	Sabang, Olele Lokseumawe	
Rehabilitation/Addition: Quays, warehouses, facilities for water supply, electricity; loading and unloading equipment	Lokseumawe-Olele Kualalangsa-Meulaboh	
Post and Telecommunications		
Express delivery postal service new routes	Medan-Bindjai-Langsa Banda Atjeh-Lokseumawe Langsa-Banda Atjeh-Meulaboh	

PROJECT	LOCATION	EXPLANATIONS
Mobile postal service		
Postal service in rural areas	Scattered over the entire province	
Installation of local telephone communications	Banda Atjeh	
Expansion of long distance telecommunication	Banda Atjeh-Djakarta	
V.H.F. Radio communications	Banda Atjeh-Sabang	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education: Sjah Kuala University, especially the Technical faculty and the faculties of Agriculture and Veterinary sciences		
Education of religious teachers State's Islamic Institute	Banda Atjeh	
Health		
School hygiene		
Establishment of Community Health Center		

PROJECT	LOCATION	EXPLANATIONS
Rehabilitation and expansion of policlinics and mother and child welfare clinics (BKIA)		
Construction of a Central Public Hospital	Banda Atjeh	
Eradication of contagious diseases		


SABANG
We island
BANDA ATJEH
reueh
sland
MALACCA STRAIT
SIGLI
MEURUDUBAROH
Bireuen
Lammeula
LHOKSEUMAWE
Lhoksukon
IDI
Langkat
M
GELIMPANG
Tjalang
TAKENGON
RUMAHBARU
LANGSA
Djamat
Lokop
Kualasimpang
Djeuram
MEULABOH
Peukankuala
Blangkedjeren
Blangpidie
INDONESIAN OCEAN
M
Kutatjane
TAPAKTUAN
Bakungan
Sidikala
Simeulue island
Sinabang
Lasia island
SINGKILBARU
Babi island
Tuangku Island
Bangkaru Island
Banjak islands

TARGET REHAB.& UPGRAD.
OF ROADS '69/70-73/74 = 1280 KM.

ATJEH

2. PROVINCE: NORTH SUMATRA

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and Second Foodcrops *)		
Intensification of Food products		
Intensification of extension service		
Production of high-yielding seeds		
Estates		
Improvement of smallholder plantations and processing units		
Rehabilitation of rubber estates		
Crumb rubber factory		
Rehabilitation of palm oil processing factory		
Eradication of weeds (alang-alang) and expansion of palm oil plantation		
Rehabilitation of tea estates		
Research center		

*) Indonesian term is Palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

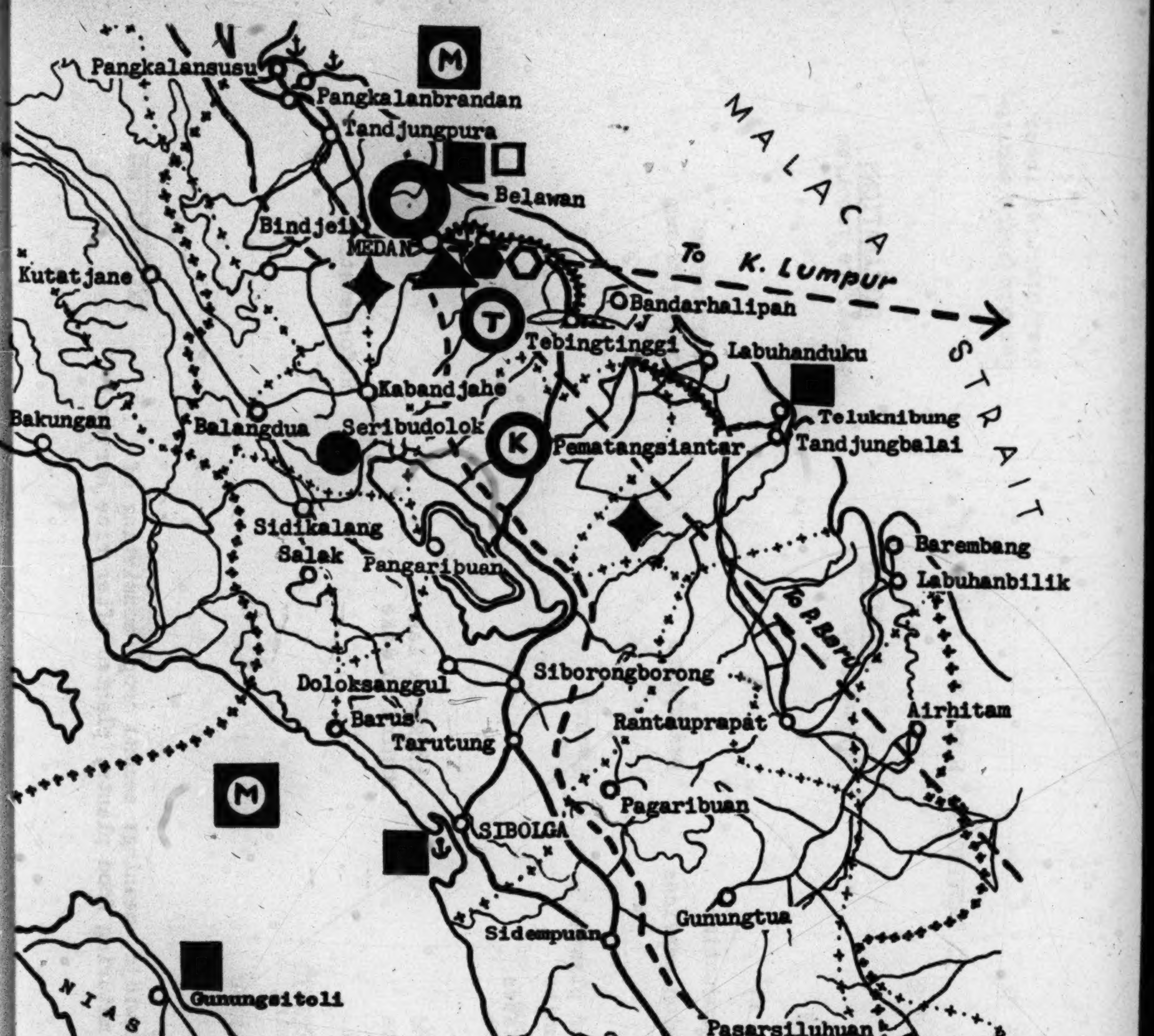
PROJECT	LOCATION	EXPLANATIONS
Fishery and Forestry		
Improvement of fishing harbors	Belawan	
Tidal fish ponds		
Fish conservation		
Flood and erosion control		Reforestation
Increase of production and processing of timber		
Increase of production and processing of non-timber forest products		
Animal Husbandry		
Protection, research and extension service		
Irrigation		
Village irrigation water pumps		
Rehabilitation and extension of irrigation	Scattered	
New irrigation work	Sisirgunting	
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation of paper mill	Pematang Siantar	

PROJECT	LOCATION	EXPLANATIONS
Mining		
Petroleum and natural gas	Off-shore	
Asphalt plant	Pangkalan Susu	Pertamina
Carbon black	"	(rehabilitation)
L.P.G. (Liquified Petroleum Gas)	"	"
Electric Power		
Hydro-electric plant	Asahan	
Steam-electric plant	Medan	
Transmission	Medan	
Distribution	Medan	
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Certain State/provincial/regency roads
Workshop for rehabilitation/upgrading of roads	Bireuen	
Urban transportation	Medan	
Weigh bridges		At provincial/state roads
Rehabilitation of railroads and bridges	Medan-Kisaran	

PROJECT	LOCATION	EXPLANATIONS
Air Communications		
Rehabilitation/upgrading and installation of air telecommunications and navigational aids	Medan	
Rehabilitation/upgrading of airfield	Polonia-Medan	
Meterological station	Medan	
Sea Communications		
Backlog dredging in ports	Belawan	
Salvage of wrecks	Belawan harbor area	
Rehabilitation/construction of quays, warehouses, water supply, electricity and loading/unloading equipment	Belawan Sibolga	
Docking and ship repair facilities	Belawan	
Navigational telecommunications	Belawan, Sibolga, Gunung Sitoli, Teluknibung.	
Buoys/beacons and coastal lights	Belawan-Sibolga	
Construction of terminals and provision of facilities for river transport	Asahan	
Post and Telecommunications		
Upgrading of express delivery postal service	Djakarta-Medan Sibolga	

PROJECT	LOCATION	EXPLANATIONS
Express delivery postal service new route	Medan-Bindjai-Langsa	
Mobile postal service	Medan	
Postal service in rural areas	Scattered	
Expansion/improvement of Clearing and Cheque services	Medan	
Installation of local telephone communications	Medan	
Extension of long distance telecommunications	Medan-Djakarta	
Extension of telegraph and telex communications by HF and VHF radio	Medan-Belawan Medan-Malaysia	
Extension of local telephone	Medan	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education	Scattered	Over the production areas
Development of higher education: North Sumatra University, especially the faculties of Agriculture, Veterinary sciences and Animal husbandry, Medical faculty and Faculty of Educational sciences	Medan	

PROJECT	LOCATION	EXPLANATIONS
Development of national culture:		
a. Art centre	Medan	
b. Museum	Simalungun	
Education of accountant assistants		
Health		
Community health education (School hygiene, Hygiene and sanitation, health education in the community)		
Community health center		
Rehabilitation and expansion of policlinics and mother and child welfare clinics (BKIA)		
Upgrading of medical laboratory	Medan	
Eradication of contagious diseases		
Quarantine	Belawan	
Housing, Social Welfare and Drinking water supply		
City planning	Medan	
Regional planning	Medan	
Guidance and Aid		
Social guidance to the community	Medan	


Pangkalansusu
Pangkalanbrandan
Tandjungpura
M
Belawan
MALACA STRAIT
Bindjei
MEDAN
To K. Lumpur
Kutatjane
T
Bandarhalipan
Tebingtinggi
Labuhanduku
Kabandjahe
Teluknibung
Bakungan
Balangdua
Seribudolok
K
Pematangsiantar
Tandjungbalai
Sidikalang
Salak
Pangaribuan
Barembang
Labuhanbilik
To P. Baru
Doloksanggul
Siborongborong
Barus
Airhitam
Rantauprapat
Tarutung
M
Pagaribuan
SIBOLGA
Gunungtua
Sidempuan
NIAS I.
Gunungsitoli
Pasarsiluhuan
Hutanopan
Muarasipongi
Natal
Telukdalem

TARGET REHAB.& UPGRAD.
OF ROADS '69/70-73/74 =
2200 KM.

NORTH SUMATERA

3. PROVINCE: WEST SUMATRA

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and Second Foodcrops *)		
Intensification of food production		
Intensification of extension services		
Estates		
Improvement of smallholder plantations and processing units		
Rehabilitation of tea estates		
Fishery and Forestry		
Care of fish resources and rehabilitation of lakes	Singkarak lake Manindjau lake	
Flood and erosion control		Reforestation
Intensification of timber production and processing		
Animal Husbandry		
Protection, research and extension service		

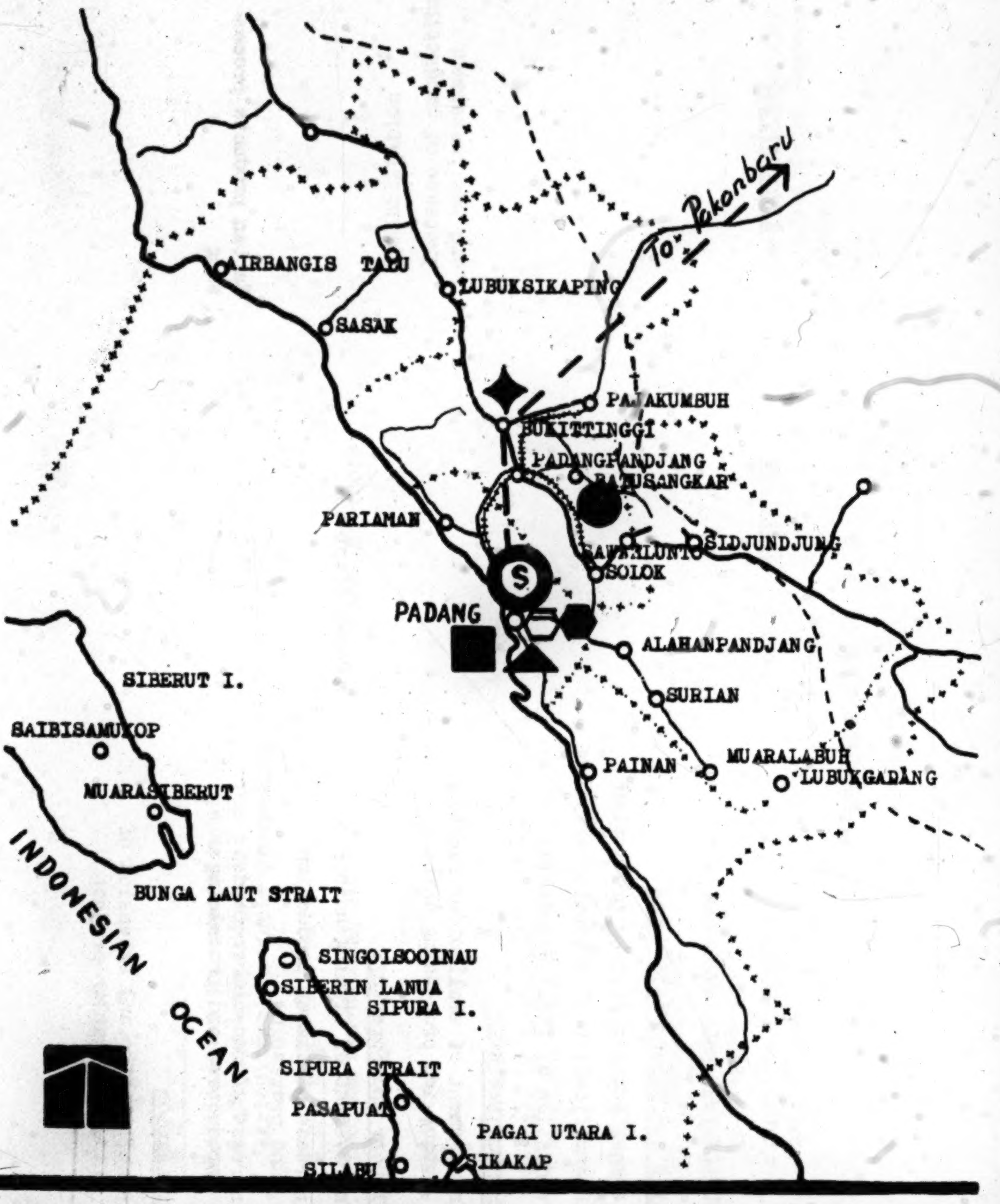
*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Irrigation		
Rehabilitation and expansion		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation of Padang cement factory	Padang	
Rehabilitation and intensification of light and home industries		
Dry docking	Padang	
Mining		
Ombilin coal mines	Sawahlunto	Finishing and Utilization
Electric Power		
Increase of installed electric power		
Hydro-electric plant	Batang Agam	Materials imported
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Certain state/provincial/district roads

PROJECT	LOCATION	EXPLANATIONS
Rehabilitation/upgrading of signal system, railway communications and electronic equipment		
Workshop for rehabilitation/ upgrading of roads	Padang	
Air Communications		
Upgrading of airfield	Padang	
Rehabilitation/upgrading and installation of air telecommunications and navigational aids	Padang	
Electrification of airfield and facilities for fire fighting		
Meteorological station	Padang	
Sea Communications		
Harbor and facilities: Rehabilitation/construction of new quays, warehouses, water supply, electricity and loading and unloading equipment	Padang	
Coastal lights, buoys/beacons	Padang	

PROJECT	LOCATION	EXPLANATIONS
Post and Telecommunications		
Upgrading of express delivery postal service	Djakarta-Padang-Bukittinggi Pajakumbuh	
Extension of express delivery postal service	Djakarta-Padang	
Mobile postal service	Padang-Bukittinggi	
Postal service in rural areas	Scattered over the entire region	
Expansion of long distance telecommunications	Padang-Djakarta Padang-Bukittinggi Pakanbaru	
EDUCATION AND MANPOWER		
Intensification of technical and vocational education		
Development of higher education: Andalas University, especially the faculties of Agriculture and Medicine	Padang	
Development of National culture (Karawitan Conservatory)	Padang Pandjang	
Education of Religious Teachers		
HEALTH		
School Hygiene		

PROJECT	LOCATION	EXPLANATIONS
Establishment of Community Health Centre		
Rehabilitation and expansion of policlinics and Mother and Child Welfare Clinics	Padang	
Construction of a Central Public Hospital	Padang	
Eradication of contagious diseases		
Housing, Social Welfare and Drinking Water Supply		
Community Services to isolated ethnic groups		


To Pakanbaru
AIRBANGIS
TALU
LUBUKSIKAPING
SASAK
PAJAKUMBUH
BUKITTINGGI
PADANGPANDJANG
BATUSANGKAR
PARIAMAN
SAWAHLUNTO
SIDJUNDJUNG
S
SOLOK
PADANG
ALAHANPANDJANG
SURIAN
PAINAN
MUARALABUH
LUBUKGADANG
SIBERUT I.
SAIBISAMUKOP
MUARASIBERUT
INDONESIAN OCEAN
BUNGA LAUT STRAIT
SINGOISOOINAU
SIBERIN LANUA
SIPURA I.
SIPURA STRAIT
PASAPUAT
PAGAI UTARA I.
SILABU
SIKAKAP

TARGET REHAB. & UPGRAD. OF ROADS '69/70 - 73/74 = 1160 KM.

WEST SUMATERA

4. PROVINCE: RIAU

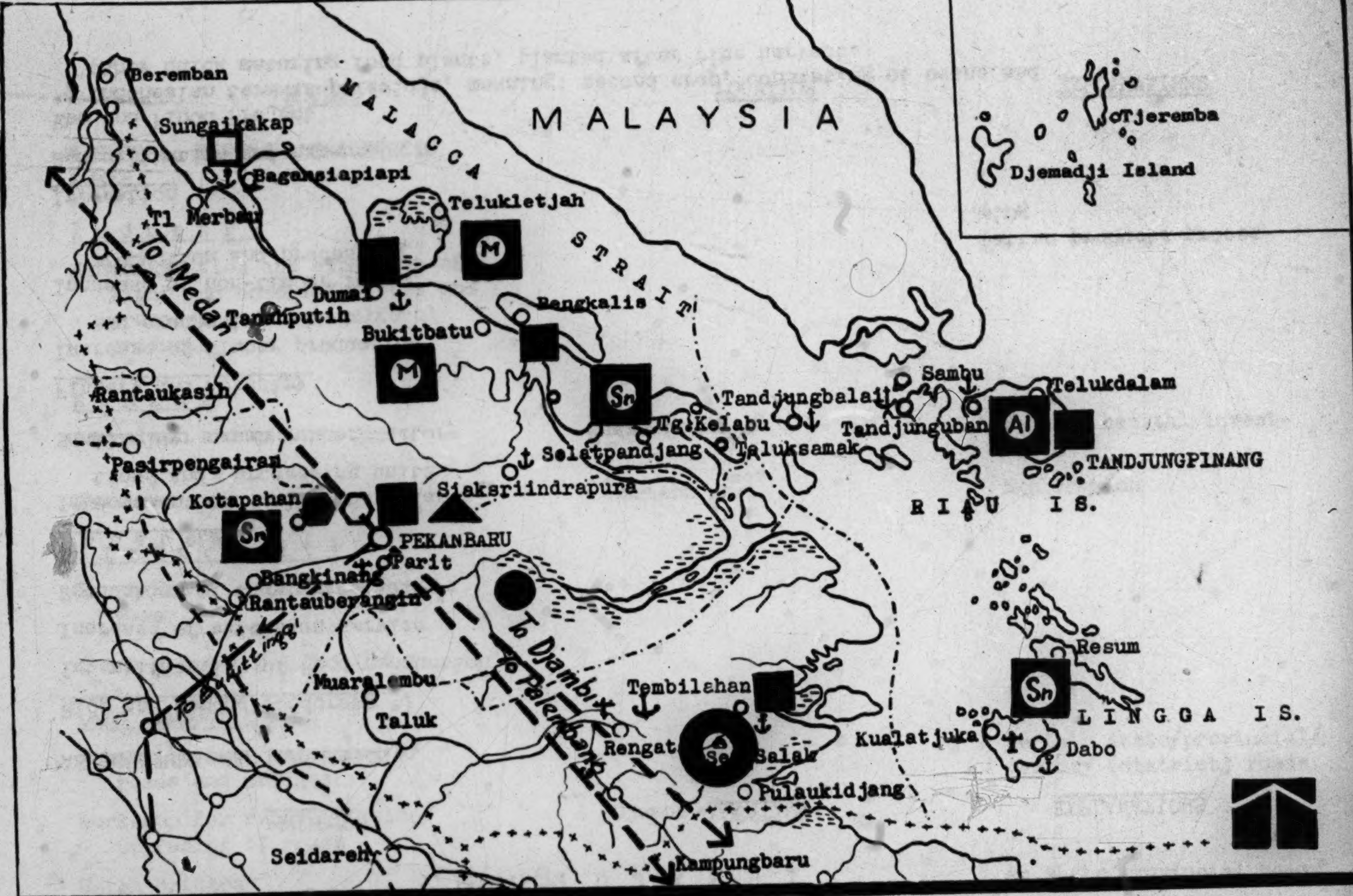
PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and Second Food Crops		
Intensification of Food production		
Intensification of extension services		
Production of Tidal Ricefields		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Improvement of fishing harbor	Bagan Siapi-api	
Increase of timber production and processing		
Increase of non-timber forest production and processing		Rattan products processing
Irrigation		
Rehabilitation and extension of tidal irrigation project		

PROJECT	LOCATION	EXPLANATIONS
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and expansion of light and home industries and agricultural products processing		
Mining		
Petroleum and natural gas	On and Off-shore	
Tin		Rehabilitation
Bauxite		Increase of production and new investment
Electric Power		
Increase of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation and upgrading of bridges and roads		
Workshop for rehabilitation/upgrading of roads	Riau	Certain state/provincial/district/regency roads

PROJECT	LOCATION	EXPLANATIONS
New bridges	Bangkuang Lake, Muara Mahat, Batu Andjing	
Air Communications		
Air communication and navigational aids	Pakanbaru Tandjung Pinang Singkep Rengat	
Upgrading of runway	Pakanbaru	
Rehabilitation of airfield	Tandjung Pinang	
Electrification of airfield and fire-fighting facilities	Pakanbaru	
Meteorological station	Tandjung Pinang Rengat	
Sea Communications		
Coastal fleet (modernization) of proas) prahus	Pakanbaru/Bengkalis	
Navigational safety facilities, navigational telecommunications	Pakanbaru Dumai Tandjung Pinang Bengkalis Tembilahan	
Buoys/beacons and coastal lights	Bagan Siapi-api Dumai	
Terminal and river transport facilities	Siak Indragiri	

PROJECT	LOCATION	EXPLANATIONS
Post and Telecommunications		
Express delivery postal service	Riau-Pakanbaru-Pajakumbuh	
Postal service in rural areas/ permanent post office	Scattered over the whole region	
Local telephone	Riau	
Extension of long distance telecommunications	Djakarta-Pakanbaru	
Long distance communication by VHF radio/microwave	Djakarta-Palembang	
3/12 channel open wire carrier VHF radio	Padang-Bukittinggi-Pakanbaru	
Tropo scatter	Pakanbaru-Djambi	
Improvement of telegraph and telex communication	Pakanbaru-Djakarta	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education: Riau University, especially Faculty of Forestry, Agricultural education	Pakanbaru	
Fishery education	Dumai	

PROJECT	LOCATION	EXPLANATIONS
H E A L T H		
Establishment of Community Health Center		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics (BKIA)		
Construction of a Central Public Hospital	Pakanbaru	
Eradication of contagious diseases		
Housing, Social Welfare and Drinking Water Supply		
Community Services to isolated Ethnic Groups		


MALAYSIA
MALACCA STRAIT
Beremban
Sungaikakap
Bagansiapiapi
Tl Merbau
Telukletjah
Dumai
Tanahputih
Bengkalis
Bukitbatu
Rantaukasih
Pasirpengairan
Kotapahan
Siaksriindrapura
Selatpandjang
Tg Kelabu
Taluksamak
Tandjungbalai
Sambu
Tandjunguban
Telukdalam
TANDJUNGPINANG
RIAU IS.
Djemadji Island
Tjeremba
PEKANBARU
Parit
Bangkinang
Rantauberangin
To Medan
To Djambi
To Palembang
To Bukittinggi
Muaralembu
Taluk
Tembilahan
Rengat
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TARGET REHAB. & UPGRAD.
OF ROADS '69/70-73/74 = 600 KM.

R I A U

5. PROVINCE: DJAMBI

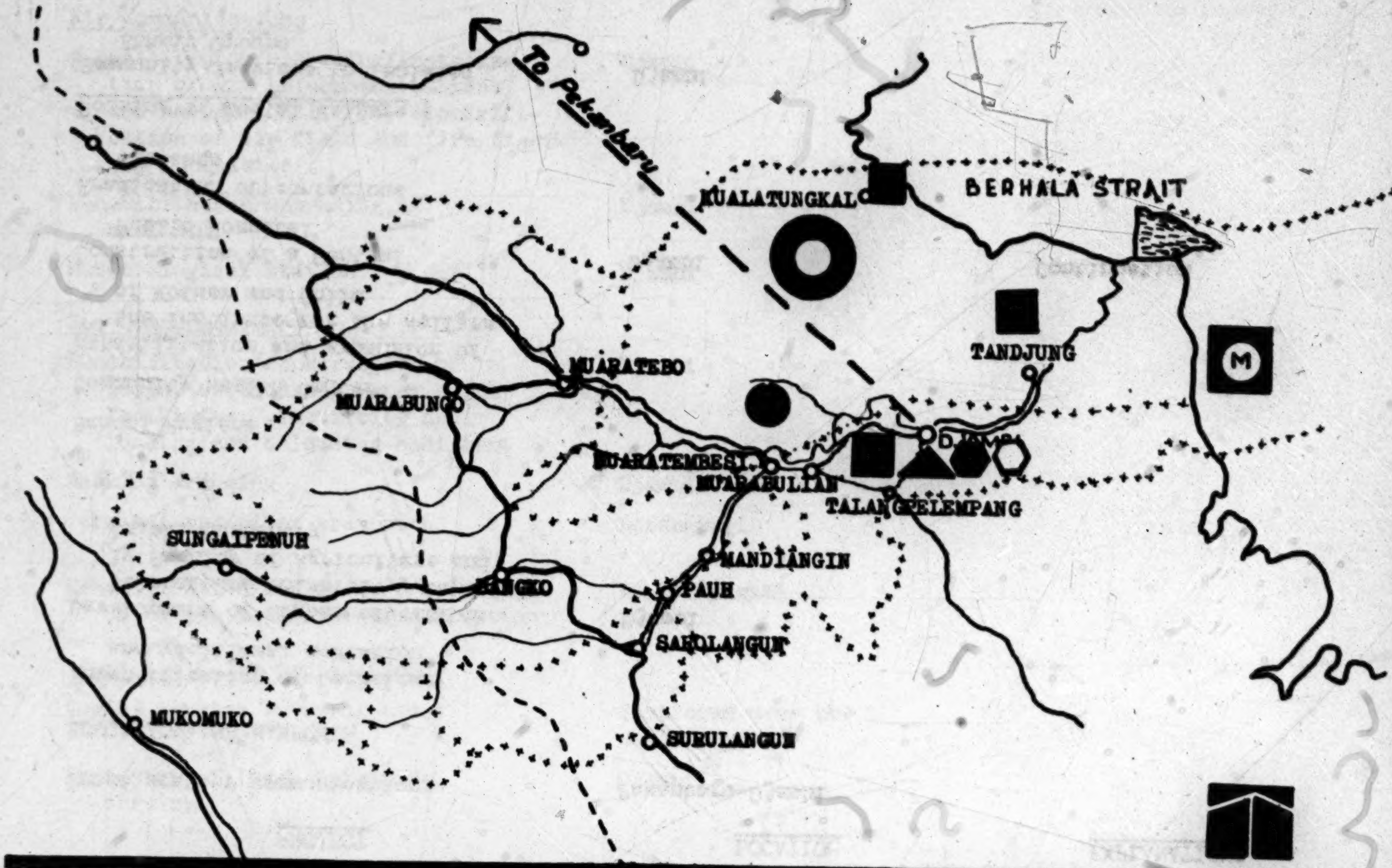
PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and Second Foodcrops *)		
Intensification of Food production		
Increase of extension service		
Production of tidal ricefields		
Estates		
Improvement of smallholder plantations and processing units		
Smallholder crumb rubber factory	Muara Bunga	
Fishery and Forestry		
Increase of timber production and processing		
Increase of non-timber forest production and processing		Rattan products processing
Irrigation		
Rehabilitation and expansion		
Ebb and Flood Project		

*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and expansion of light and home industries and processing of agricultural products		
Mining		
Petroleum and natural gas	Djambi coast	Foreign capital investment
Bauxite	Eastern part	Exploration
Electricity		
Increase of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Certain state/provincial/regency (district) roads
Workshop for rehabilitation/upgrading of roads	Djambi	
Weigh bridges		At state/provincial roads

PROJECT	LOCATION	EXPLANATIONS
Air Communications		
Rehabilitation/upgrading/installation of air telecommunications and navigational aids, electrification of air field and fire fighting facilities	Djambi	
Rehabilitation/upgrading of airfield	Djambi	
Meteorological station	Djambi	
Sea Communications		
Rehabilitation/construction of quays, warehouses, water supply facilities, electricity and loading and unloading equipment	Djambi	
Backlog dredging	Djambi	
Terminal and river transport facilities	Batanghari	
Rehabilitation/replacement/extension of navigational telecommunication	Kuala Tungkal	
Post and Telecommunications		
Postal service in rural areas	Scattered over the whole region	
Expansion of local telephone service	Djambi	

PROJECT	LOCATION	EXPLANATIONS
Tropo scatter communications	Pakanbaru-Djambi	
EDUCATION AND MANPOWER		
Intensification of technical and vocational education		
Development of higher education: Telenaipura University, especially Faculty of Agriculture and Animal Husbandry	Djambi	
HEALTH		
School Hygiene		
Community Health Center		
Rehabilitation and expansion of the Institute for the Welfare of Mother and Child		
Construction of a Central Public Hospital	Djambi	Continuation
Eradication of contagious diseases		
Housing of Social Welfare		
Community Services to isolated Ethnic Groups	Djambi	


To Pekanbaru
KUALATUNGKAL
BERHALA STRAIT
TANDJUNG
M
MUARATEBO
MUARABUNGO
MUARATEMBESI
MUARABULIAN
DJAMBI
TALANGPELEMPANG
SUNGAIPENUH
BANGKO
MANDIANGIN
PAUH
SAROLANGUN
MUKOMUKO
SURULANGUN

TARGET REHAB. & UPGRAD.
OF ROADS '69/70 - 73/74 = 780 KM.

D J A M B I

6. PROVINCE: SOUTH SUMATRA

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and Second Food Crops		
Intensification of Food production		
Increase of extension service		
Production of tidal ricefields		
Estates		
Improvement of smallholder plantations and processing units	Surulangun Rawas Tandjung Lahat	
Estate crumb rubber factory	Kedaton	
Rehabilitation, rejuvenation and conversion of rubber estates		
Rehabilitation of oil palm plantations		
Fishery and Forestry		
Improvement of fishing harbors	Palembang Mesudji	
Care of fish resources and rehabilitation of lakes		
Tidal fish ponds		

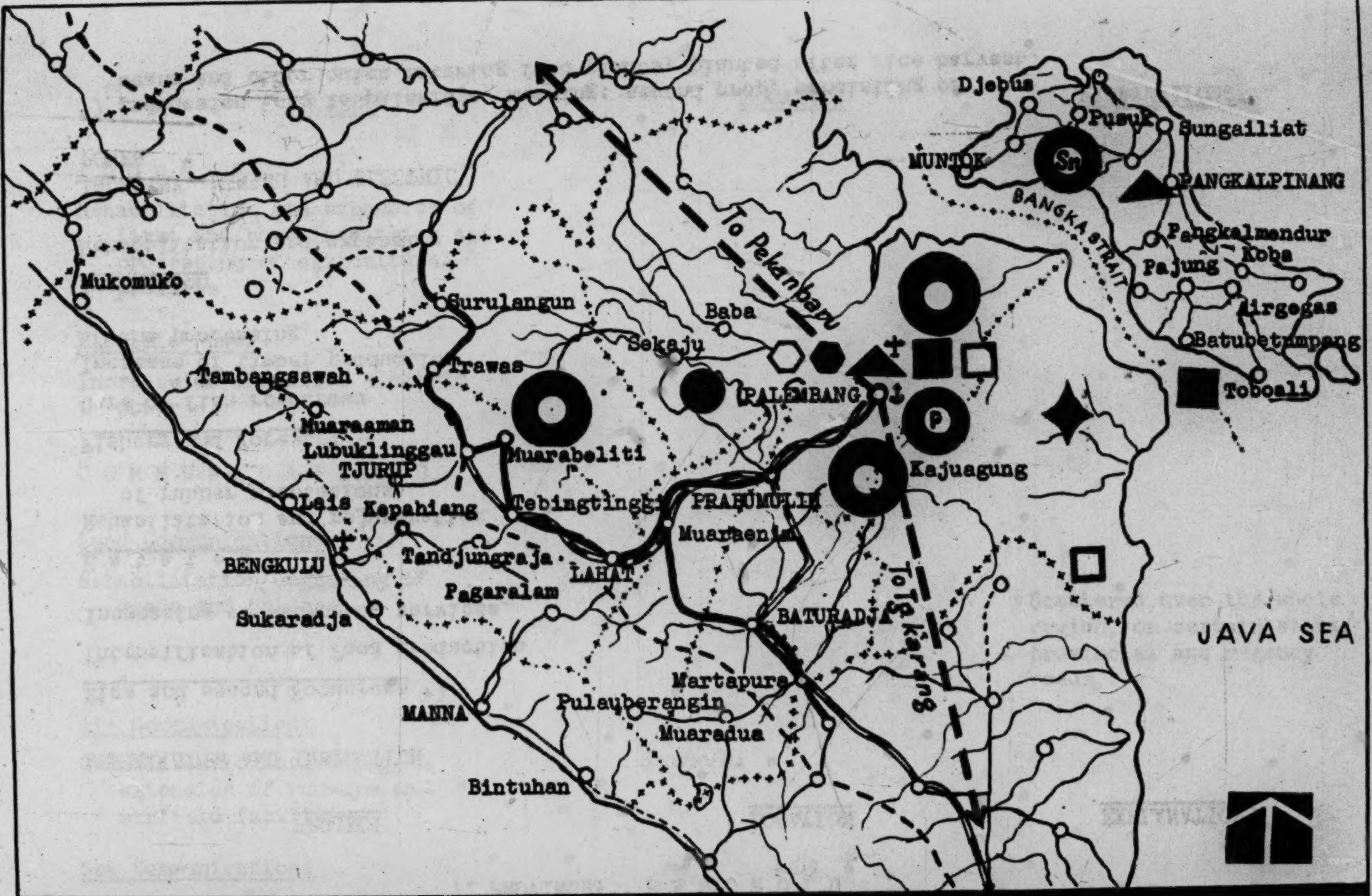
PROJECT	LOCATION	EXPLANATIONS
Guidance for fresh water fish cooperative	Kaju Agung	Pilot project
Flood and erosion control		Reforestation
Increase of timber production and processing		Increase of timber production and curbing illegal farming
Increase of non-timber forest production and processing	Palembang	Production and processing of rattan and other forest products
Animal Husbandry		
Protection, research and mass guidance		
Irrigation		
Rehabilitation and expansion of irrigation/rice cultivation projects	Air Beliti Ogan Kramasan II and III	
Tidal irrigation project		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Expansion of "PUSRI" fertilizer plant	Palembang	
Finishing construction of spinning mill project		

PROJECT	LOCATION	EXPLANATIONS
Mining		
Petroleum and natural gas		Exploration and exploitation
Rehabilitation of tin mines	Bangka-Biliton	
Rehabilitation of coal mines	Tandjung Enim	
Bauxite	Eastern Area	Exploration
Electric Power		
Steam electric plant	Palembang	
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Certain state/provincial/regency roads
Workshop for the rehabilitation/upgrading of roads	Palembang	
Weigh bridges		On national and provincial roads
Urban transportation	Palembang	
Rehabilitation/upgrading of railroads and installations, road beds and railway buildings	Kertapati-Baturadja Prabumulih Palembang	

PROJECT	LOCATION	EXPLANATIONS
Rehabilitation/upgrading of signal system and railway electronics		
Air Communications		
Rehabilitation/upgrading and installation of air telecommunications and navigational aids, electrification of air field and fire-fighting facilities	Palembang Pangkalpinang Tandjungpandan Palembang	
Rehabilitation/upgrading of airfield	Palembang	
Sea Communications		
Modernization of proas (coastal fleet)	Palembang	
Harbor facilities	Palembang Bengkulu Pangkalbalam	Rehabilitation/addition of quays, warehouses, water supply facilities, electricity and loading and unloading equipment
Salvage of wrecks	Palembang Bangka Straits	
Backlog dredging	Musi River Palembang	
Rehabilitation/addition of dock repair unit	Palembang	

PROJECT	LOCATION	EXPLANATIONS
Rehabilitation/replacement/ extension of navigational telecommunications	Palembang Pangkalbalam	
Post and Telecommunications		
Expansion of express delivery postal service	Palembang-Kaju Agung-Muara Dua	
Railway postal service	Kertapati-Pandjang	
Postal service in rural and remote areas		Distributed over the whole region
Installation of long distance communications (Micro-wave Java-Sumatra)	Palembang-Tandjungkarang Djakarta	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education: Sriwidjaja University, especially Agricultural, Technical and Medical Faculties	Palembang	

PROJECT	LOCATION	EXPLANATIONS
H E A L T H		
School Hygiene		
Establishment of Community Health Center		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Construction of a Central Public Hospital	Palembang	Finishing stage
Upgrading of Medical Laboratory	Palembang	
Eradication of contagious diseases		
Housing, Social Welfare and Drinking Water Supply		
City Planning	Palembang	


Djebus
Pusuk
Sungailiat
MUNTOK
Sn
PANGKALPINANG
BANGKA STRAIT
Pangkalmendur
Koba
Pajung
Airgegas
Batubetumpang
Toboali
To Pekanbaru
Baba
Sekaju
PALEMBANG
P
Kajuagung
Mukomuko
Surulangun
Trawas
Tambangsawah
Muaraaman
Lubuklinggau
TJURUP
Muarabeliti
Lais
Kepahiang
Tebingtinggi
PRABUMULIH
Muaraenim
BENGKULU
Tandjungraja
LAHAT
Pagaralam
Sukaradja
BATURADJA
To Tg karang
JAVA SEA
Martapura
Pulauberangin
Muaradua
MANNA
Bintuhan

TARGET REHAB. & UPGRAD.
OF ROADS '69/70 - 73/74 = 2430 KM.

SOUTH SUMATERA

7. PROVINCE: BENGKULU

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increasing of extension services.		
Estates		
Rehabilitation and rejuvenation of rubber plantations		
Fishery and Forestry		
Care of fish resources		
Increase of timber production and processing		
Irrigation		
Rehabilitation and expansion		
INDUSTRY, MINING AND ELECTRIC POWER		

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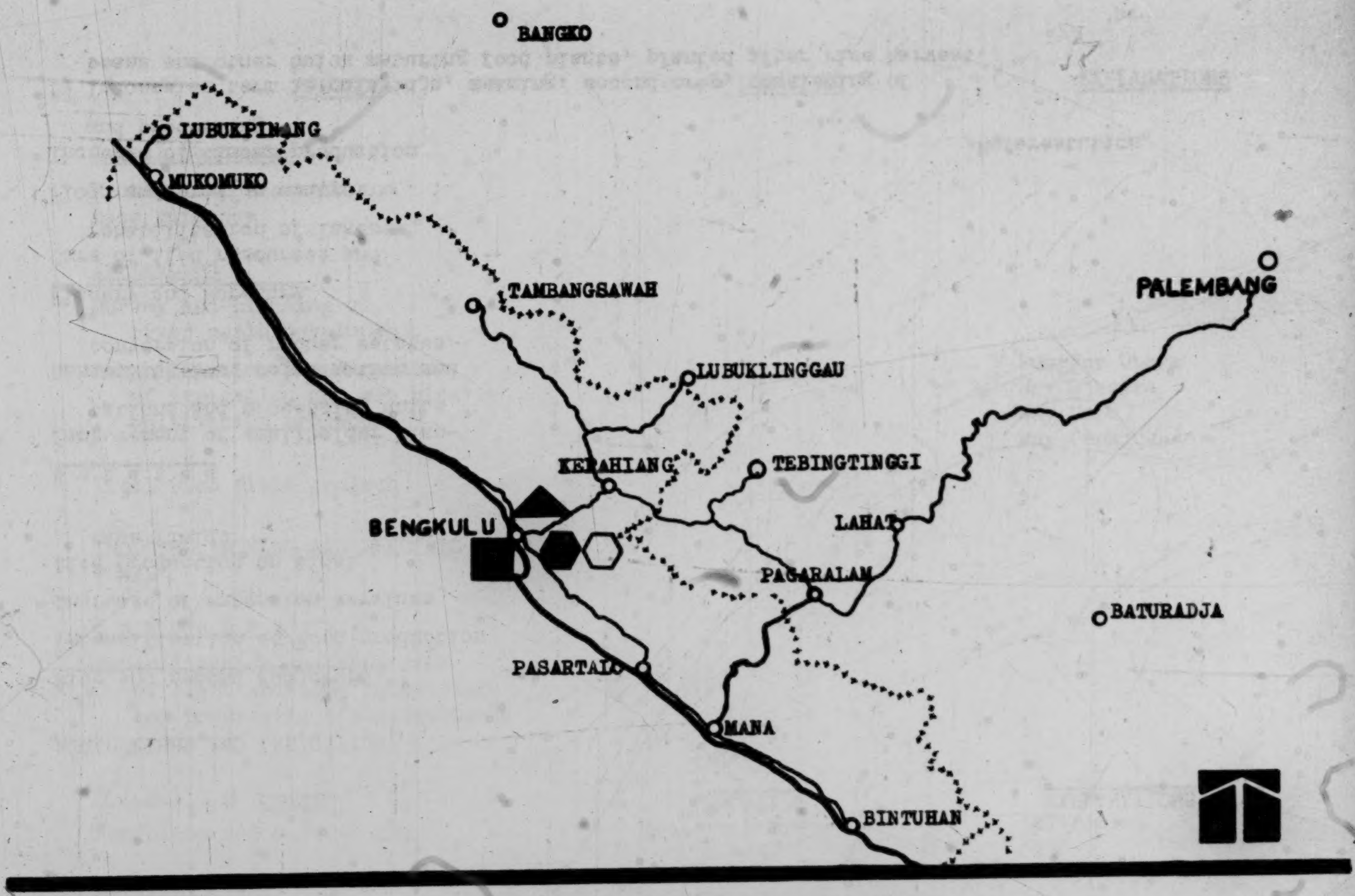
*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Industry		
Rehabilitation and expansion of light and home industries and processing of agricultural products		
Electric Power		
Increase of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Scattered over the whole region, on certain state/provincial and regency roads
Air Communications		
Rehabilitation/upgrading/extension of runways and airfield facilities	Bengkulu	
Sea Communications		
Rehabilitation/construction of terminal facilities (quays, warehouses, electricity,	Bengkulu	

PROJECT	LOCATION	EXPLANATIONS
water supply, loading and unloading equipment)		
EDUCATION AND MANPOWER		
Intensification of technical and vocational education		
Agricultural education		
HEALTH		
School Hygiene		
Establishment of Community Health Centre		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		


BANGKO
LUBUKPINANG
MUKOMUKO
TAMBANGSAWAH
LUBUKLINGGAU
KEPAHIANG
TEBINGTINGGI
BENGKULU
LAHAT
PALEMBANG
PAGARALAM
BATURADJA
PASARTAIS
MANA
BINTUHAN

BENGKULU

ment needs to be brought into line with the principles of Pantja Sila, in the sense of developing a socially educative system without neglecting necessary repressive measures.

b.7 Corruption and smuggling must be dealt with by firm measures. Undermining of the economy by foreigners should be given special attention and control over foreigners entering and leaving the country should be intensified.

b.8 Uniformity still remains to be achieved in the application of law to civilians and to members of the armed forces.

b.9 A law-abiding attitude on the part of the community is still not well established. This is an obstacle to the achievement of a life shaped by the "Rule of Law". The old habit of coveting the "Rule of Man", that we learned in the period now past remains impervious to evidence of losses that have occurred through the abuse of power.

b.10 Personnel and material in this field still have to be improved.

2. Policy and Measures

The conditions and the problems mentioned above form the basis for deciding policies and procedures in the Five-Year Development Plan.

2.1 The Legislative and Law-making Field

a. To carry out legislation based on the 1945 Constitution and the Decrees of the Provisional People's Consultative Assembly concerning the following:

1. Social Welfare
2. State Finance
3. National Defense and Security
4. Politics

5. Law and Justice

b. To undertake the framing of national law covering:

1. Criminal Law
2. Civil Law
3. Commercial Law
4. Penal Code of Procedures
5. Civil Code of Procedures

2.2 The Law Enforcement/Adaptation Field

a. To carry out fast and orderly administration of justice, legal processes comprise a series of interconnected activities: in criminal cases they include investigations, finger prints, prosecution, sentencing and penalties. The officials who are functionally involved are the police, the lawyers and the judge. In a civil case the legal assistance given by the lawyer also helps to determine the duration of the lawsuit. To achieve swift and orderly administration of justice, functional co-ordination of all parties involved will be promoted. In addition, the ability and the honesty exhibited by legal personnel in the execution of their tasks is of the greatest importance.

b. To undertake the framing of administrative law.

c. Control of and putting order into the system of detention, search and confiscation, putting the authority of legal officials in the right proportion, including a proper adaptation of laws of procedures.

d. Extra-judicial factors:

To ensure independent and impartial administration of justice, extra-judicial factors will be eliminated. In connection with this principle of independence, it is endeavoured to bring about clearance in institutional relations between government institutions having judicial authority, administratively as well as judicially. The character of the individual judge is the chief guarantee of legal impartiality. The position, salary and status of judges is being improved. Material facilities and provision of housing must be increased within the framework of carrying out the judge's tour of duty.

e. Administration improvement concerning especially: evidence, confiscated goods, fines, legal compensation, reimbursement of witnesses and costs of arrest.

f. Improvement of legal apparatus and the prison system. This will be done by physical rehabilitation of prisons in order to give training and skills to prisoners before they are released from prison. The Pantja Sila character is taken as the basis for the treatment of prisoners.

g. Immigration apparatus must still be improved to ensure National Security and Integrity. Control over the movement of foreigners will be intensified on the basis of selective policy, especially in inter-insular traffic, and for this purpose inter-insular transport and communication should be rehabilitated and accelerated. There will be better co-ordination of immigration, customs, the police force, the office of the prosecutor and other authorities.

h. The indiscriminate enforcement and administration of the law, to civilians and members of the Armed Forces will be endeavored.

i. To increase a law-abiding mentality in the community.

j. Improvement of personnel and material pre-requisites.

k. Education Training and Upgrading.
Programs of systematic education, training, and upgrading will be developed for technical as well as administrative personnel attached to the Central and Regional Governments.

Judges and clerk~~s~~ will also be upgraded, and officials of the prisons will be trained, and the same thing will be applied to immigration and administration officials. An "Executive Development Program" will be conducted to train managing cadres. Prosecutors will be given general and judicial training. As funds are limited, rehabilitation of available training facilities will be carried out only in these offices, and upgrading and training opportunities given by other authorities will be utilized wherever possible. To improve consistency in carrying out judicial functions, co-operation between the civil courts and those of the Armed Forces will be promoted.

l. Rehabilitation and Expansion of the Functions of Courts and Prosecutors' Offices.

This will be done by phases, in line with the available funds. Inequities in the area of legal services to the public will be minimized. To allow sessions to be held conveniently, more rooms will be provided with the assistance of the regional governments. This will help win more appreciation of the public for the function of the law enforcement elements. Efforts will be made to establish a district court of first instance and public prosecutor's offices in every district (kabupaten) and an appellate court of justice and an attorney's office in every province. This is expected to be carried out in two phases. The first is outlined in the Five-Year Development Plan, the target of which will be reached while taking into consideration both the size of the population and the area of jurisdiction. The latter will be used as the basis for determining the class of the court of justice and the prosecution office in each of the regions, and the constitution of its personnel. In the case of a very extensive jurisdiction, mobile courts will be employed, for which transport will be provided.

m. Law Library and Bibliography.

As an integral part of the courts and prosecutors' offices, a library and bibliography of law will be established and equipped. Besides books on social sciences, especially law, and up-to-date reference materials, libraries of jurisprudence, magazines, regulations and legislative acts will be collected. Foreign aid and co-operation with universities will be fully utilized. Legal decisions will be compiled systematically to form the basis of subsequent jurisprudence.

Table XIII-A-1

FINANCING OF THE FIVE-YEAR DEVELOPMENT PLAN
LEGAL ORDER
1969/70 - 1973/74
(in millions of rupiah)

Field/Sector/ Sub-Sector/Program	1969/70	1969/70-1973/74
Social Field		
Legal Order Sector	1,060	9,269
1. Legal Order Sub-Sector	1,060	9,269
a. Legal Order Development Program	645	5,631
b. Prisoner Rehabilitation and Reclassification Program	415	3,638
Activities of Legal Order, financed by other sectors		
a. Education of Law officials (included in the Education and Cultural Sector, Education and Institutional Research Sub-Sector)	40	204

B. INFORMATION

Introduction

To assure the success of the Five-Year Development Plan, efforts will be made to disseminate widely the ideas and the attitudes contained in the plan, in order to gain the active participation of the whole society in carrying it out.

Effective information is needed to foster that understanding and appreciation. Since information activities are carried out by the Government as well as by the society a national information program will be composed. Information concerning the Five-Year Development Plan and its implementation will be provided by government apparatus. The Government will also determine policies concerning information given by the community.

Stimulation and encouragement will be given in this area which will be simpler and more acceptable to the public, since it comes from the public itself.

A national information system would include the participation of prominent public figures (in the scientific and other social fields). In this way, understanding will more easily develop.

Information methods will be improved. Instruction will be by discussions, seminars, etc. Upgrading will be given to government information officers.

It is necessary, that the news broadcasting system be improved. This will be integrated with other methods of spreading informations such as post, telecommunication, and other communication systems. The information program in the Five-Year Development Plan is not only to increase its effectiveness, but also to bring the whole system into line with the Pantja Sila democracy.

1. Situation and Problems

In the past, information was given in the form of indoctrination and oratory. It was more sloganism than concrete and useful activity. Besides it was very much controlled, thereby dulling the creative information capacity of the people.

The condition of the information officials, in terms of mental skill and adaptability must be improved. Institutions for the upgrading of information officers, including education in filming, broadcasting, and television are still very limited.

Physical requirements of the Government in the way of mass media are still lacking, from the point of view of the vast territory and the wide distribution of the population. Equipment has to be rehabilitated and changed as much of it is broken or obsolete. Radios, television sets, presses, audio-visual units, and public address systems are very much needed to bring information directly to the people.

In general, materials such as photos, documentaries, story films, and other kinds of exhibitions are lacking. The system for sending information abroad is also very poor, due to old and obsolete equipment. Information given out by various government authorities also needs improved coordination.

In several areas of information, the condition has been deteriorating, such as newspapers and magazines, of which two million a day were published before 1967 and only 900 thousand today. The regional press is still very backward and its development is not flourishing, compared with that in the capital, due to lack of materials. The same is true of the capacity of printing offices in the provinces, because the distribution of their production has not been smooth. Difficulties have occurred in matrix supplies, resulting in badly printed papers. By now, matrices have been imported. Two printing units have been built in Djakarta and Surabaja, and two are being built in Makasar and Medan.

Television shows some progress, however, it still needs improvement. At present there are two stations, one in Djakarta and one in Jogjakarta, six relay stations, and three transmitting stations to permit the reception of T.V. programs in Nagrak, Gombel and Tawangmangu. Some places in Sumatra are able to receive programs from Malaysia and Singapore. For radio, there are one national studio, 3 nusantara studios and 38 regional studios organized by the Radio Republik Indonesia. Beside that there are also amateur studios. When the Tjimanggis national broadcasting station is completed (3 of 110 KW and 2 of 50 KW)its broadcasts are expected to reach the whole Indonesian Archipelago, Europe, Asia and Australia.

2. Policy and Measures

2.1 The Policy and the Targets for Information

The policy is aimed at increasing understanding and active participation on the part of the society toward the Five-Year Development Plan, and at the same time encourage conciousness to develop. This will be done by increasing efficiency and improving equipment and upgrading information officers and stimulating information activities by the public in line with the Government's policy. Encouragement of activities and effective networks already existing in the society and of specialized information on certain subjects will ease the burden of the Government in this field. The information will be more effective and a sense of appreciation on the part of the public will be created.

Making use of prominent public figures in the fields of science, the arts, religion, and other social fields will help this program. The stimulation and direction of information by the public will be given by the Government by providing materials, reports, briefings, press conferences, and so on, so that the public will be well informed about the government policy. Moreover, facilities will be provided for education, upgrading and training in more advanced information techniques such as journalism, printing, photography, etc. Press rooms will be built and people active in mass information activities will be given the opportunity to accompany government officials making tours to development projects for the purpose of checking the progress made so that they can explain things they have seen "on the spot". Development problems will be brought to seminars and the results will be broadcast, for example village modernization, the sowing of highgrade seeds, fund raising, urbanization, etc. Consultations will be held continuously as well as dialogues and co-operative efforts between government and private mass information apparatus.

The co-ordination of various information activities by government agencies will be improved, thereby increasing efficiency and improving results. The system of information will emphasize direct information to the people, either through communication media such as radio and television or by visits, seminars, morning courses in mosques, the press, film performances, mass meetings, publications, etc. There will also be visual aids and information in local languages. A system of participation will be used rather than indoctrination.

All this requires more skillful information specialists. They should be equipped with good ability in communication techniques, and a strong character so as to be able to explain things in a manner that will be acceptable to the public.

There will be schools and courses for information officers. Formal education will be given at the Information Academy and the middle and higher grade schools of information (PPSDP and PPSDA). There will also be upgrading and reporter courses. It is expected that in the five-year period all information personnel will be fully trained and upgraded. In the private sector, the same thing is expected with respect to the information apparatus.

The main targets of the information sector are the success of the economic and political rehabilitation and stabilization program, the Five-Year Development Plan, the general election, and the national alertness to resist and avoid the occurrence of the 30 September Communist movement. Priorities -- in the frame of above-mentioned targets -- are given to economic and political rehabilitation and stabilization in Central Java, East Java, West Kalimantan and West Irian. Concerning the Five-Year Plan, information will stress its priorities, namely agriculture, agricultural industries, tourism, etc. For this purpose, equipment will be supplied such as cars and boats carrying public address systems, 16 mm. film projectors, tape recorders, photographic equipment, cine cameras, overhead projectors, etc.

3. Information Infrastructure

The government will build a Government Publication Center. This center will collect and furnish government publication materials and reports on government activities, and also periodic reports on the progress of development.

In the field of the press, the ratio of readers to papers will be raised through increasing newspaper circulations. Improvements in the supply of paper and of management will be adapted to the program of increasing newspaper circulations. Steps will be taken to publish papers in the regions, especially in those places which do not yet have any newspaper. And the quality of journalism will be raised. In the fields of printing and graphic arts, rehabilitation of printing offices in the regions will be emphasized and the printing and capacities for newspapers and magazines, especially outside Java, will be improved. The building of printing offices obtained from East Germany will be undertaken again, that is, in Makasar and Medan, and other printing units will be established outside Java.

National and International transmitters will be finished at Tjimanggis (increased by two domestic and two international transmitters). The whole archipelago and foreign countries will be reached better by broadcasts from Radio Republik Indonesia. The Djajapura and Bandjarmasin stations will be promoted into Nusantara Stations. The regions are encouraged to build their own stations with their own financing. The quality and the reception of the broadcasts will be improved and broadcasts in local languages will be made. Monitoring centers and mechanical workshops will be established. Bearing in mind that the greater part of the population is living in isolated areas, the use of transistors is most important.

There will be an intensification and broadening of television developments and studio facilities. Performance quality will be improved and the broadcasting force will be expanded so that more people will enjoy watching T.V. For this special purpose new broadcasting stations and link stations will be built. Cooperation with the Telecommunications department will be encouraged to make the execution more effective and efficient. Public television sets will be installed in isolated areas. In Sumatra a T.V. network is being tried.

In the film world, efforts are made to rebuild domestic film production. 16 mm. documentary, informational, news and entertainment films will be produced and distributed to the regions. Mobile film units will be provided along with 16 mm projector units.

Table XIII-B-1

FINANCING OF THE FIVE-YEAR DEVELOPMENT PLAN
INFORMATION
1969/70 - 1973/74
(in millions of Rupiah)

Field/Sector/Sub-Sector/Program	State Development Budget 1969/70	1969/70 - 1973/74
(1)	(2)	(3)
FIELD : SOCIAL		
Sector: INFORMATION	840 *)	5,147
1. Sub-Sector: Information	840 *)	5,147
a. Improving Popular Information Program	81	708
b. Development of Mass Media Equipment Program	509	4,439
Activities in information, of which the financing is calculated in other sectors:		
a. Education of Information Of-		

(1)	(2)	(3)
ficials (included in the Education and Culture sectors, Education and Institutional Research Sub-sectors).	46	375
b. Information Research (included in the sectors of Education and Culture and Sub-sectors of Education, and Institutional Research).	5	45
c. Physical Infrastructure Improvement (included the Public Administration sector, and Public Administration Sub-sector).	116	654

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*) Including Rp. 250,000,000.- project and technical aid to the information sector.

CHAPTER XIV

TRANSMIGRATION AND COOPERATIVES

A. TRANSMIGRATION

1. Problems

Transmigration problems can be viewed from two angles, from the point of population distribution and from the point of manpower supply for development.

Seen from the first point, the aim of transmigration is the achievement of a more balanced and equal population distribution throughout the Indonesian territory. This will necessitate moving a relatively large part of the people in Java to other islands which, at the present time, are short of inhabitants.

Viewed from the second point, transmigration means the transfer of labor to carry out various development projects in areas short of manpower. Here the main objective is not just the achievement of a more balanced and equal distribution but the supply of labor needed for the development projects required for the increase of national production.

Basically, the two aspects cannot be separated. In this Five-Year Development Plan transmigration must be linked with development projects. The size of labor force and funds needed, depends on the total manpower required for the implementation of development projects.

The primary focus is not the removal of people to other areas but the implementation of programs to increase national production. The location of projects in areas which happen to suffer from a labor shortage, is not, primarily, for the movement of population but for the achievement of a target, the increase of national production which can be reaped maximally by carrying out the projects in the areas selected.

2. Policies and Measures

In the framework of the Five-Year Development Plan implementation, transmigration is linked with development efforts and activities, and does not stand apart. Transmigration therefore, is to support development activities in certain areas and projects requiring a labor force.

Because of integrating the transmigration program with development efforts and activities, the quantity and type of migrants is in large part determined by the development requirements in the various regions. Development activities requiring manpower are, among others, the increasing of food production through the opening up of new land, mainly tidal rice-fields in Kalimantan and Sumatra, and the increase of production and export of timber and other forest products. The establishment of forestry projects in some areas outside Java requires transmigrated manpower that is already skilled as well as that still in need of special training in the field of forest industry. Further the increase of production and exports, which involves the rehabilitation and construction of infrastructure in several islands outside Java -- among others, road-upgrading, harbor rehabilitation, airfield rehabilitation, electric transmission constructuon, etc. --

requires that a relatively large labor force be brought from areas with surplus labor. The expansion of farming, estates, and fisheries also requires a great deal of labor. Of course the character of the manpower needed is different for each field. Even among projects the manpower skill needed will differ. It is, therefore, necessary to adapt the transmigration of manpower to the needs of development in the fields and projects mentioned.

In this connection, areas with a labor surplus must make adequate preparations so that migrants who will assist the implementation of projects in other areas, can meet the necessary requirements. For this purpose, training is needed to make sure they will meet the demands of their new jobs. In this way, transmigration activities will, really and directly, support the implementation of the development programs planned in various fields. This new foundation in the field of transmigration will be developed continuously, based on past experience and future possibilities. Due to the extensive preparations and activities that are required, various agencies and communities will be involved in the operational development. This demands proper preparation and suitable working procedures. Transmigration will certainly play a significant role in the implementation of projects given priority in the Five-Year Development Plan.

B. COOPERATIVES

Introduction

Cooperatives are the ordinary man's economic organization with a social character and particularly for groups with a very weak economic competence can be an instrument to protect its members from pressure and usury from outside, and increase their income, justly and equally.

In order that cooperatives can perform these functions, the effort so far made to bring them back to their pure basis, will be continued.

These efforts are based on the following:

(a) to give back the authority in cooperatives to members in accordance with democratic principles;

(b) to eliminate direct or indirect influences which can make cooperatives a political affair;

(c) to bring cooperatives back to their true base and principles, as economic enterprises as well as social institutions.

According to Article 37 of the Law No.12 year 1967 on Bases of Cooperatives what is expected from the Government in cooperative development is provision of guidance, control, protection and facilities, and help in implementing Article 33 of the 1945 Constitution.

The legislative bases for the development of cooperatives are:

(a) The 1945 Constitution, article 33 clause (1) and its explanation;

(b) M.P.R.S. Decree No. XXIII of 1966, and

(c) Law No. 12, 1967 on Bases of Cooperatives.

1. Situation and Problems

In the efforts to develop cooperatives the following problems will be encountered:

(a) a shortage of manpower to perform the task of conducting guidance and control, qualitatively as well as quantitatively;

(b) in-adequate understanding of the community and government elements about the place of cooperatives in the national economic structure;

(c) in-adequate awareness of members of the role of cooperatives as a fighting instrument to improve their living;

(d) The existence of various weaknesses such as a lack of education and knowledge on the part of cooperatives members, weak management, financing, etc.;

(e) the greater part of potential groups in the community, particularly farmers and fishermen, have not yet combined themselves in one or another cooperative organization.

At present, after being conformed to Law No.12, 1967 on Bases of Cooperatives, the estimated total of cooperative meeting the requirements is about 15,000. This means that the number of cooperatives eligible to continue in existence is around 20-25 per cent of the 1967 total.

There has been, in these last five years, an average annual increase of 10 per cent. Under the same conditions, cooperatives in the next five years will also make an annual 10 per cent progress. However, the population growth and the rehabilitation of cooperatives that have been affected by the screening mentioned above will enable cooperatives to achieve an annual growth of more than 10 per cent. In 1967, the number of cooperatives, according to type, was as shown in Table XIV-B-1.

2. Policies and Measures

In line with the development program, cooperatives showing good prospects for further existence will be taken care of, guided and protected. For this purpose, various activities will be conducted such as establishment of guidance courses and provision of certain facilities needed for their progress.

In the first stage, activities will be geared to programs that have proirity in the Five-Year Development Plan, particularly in the agriculture sector, and will emphasize education and information, organizational expansion and control, guidance, cooperative endeavours and the provision of facilities for credit, taxes and activities.

It is hoped that cooperatives will develop, year by year, as noted in Table XIV-B-2.

2.1 Education, Guidance and Research

The objectives of education, guidance and research are:

(a) to implant and broaden cooperative-mindedness among all levels and groups of the society;

(b) to increase the knowledge of the community about cooperatives;

(c) to increase the skill in cooperative affairs of members and staff personnel;

(d) to form and develop cooperative cadres;

(e) to obtain a clear and scientifically reliable picture of the situation of cooperatives in Indonesia.

Because of existing social, economic and psychological obstacles in the society, the Government will accelerate the growth process of cooperatives by providing care, guidance and information, conducting control, education and extension services. Up to now the shortage of Cooperatives cadres is still felt, quantitatively as well as qualitatively. The formation and development of cadres is also felt to be ineffective. In addition, the personnel for guiding, developing and controlling activities in government circles, particularly those active in the cooperative movement, are not quite able yet to perform their duties because of the ineffectiveness of upgrading, training and in-service training courses.

As the formation of cooperatives cadres so far can not keep pace with the progress of the cooperative movement, the system of educating cadres will be changed, by revising Se-

Table XIV-B-1

SITUATION OF COOPERATIVES ACCORDING TO TYPE
1967

Type	Total	Members
Lending-saving	11,096	1,510,951
Service	3,540	355,613
Agricultural	12,387	1,157,351
Stock breeding	315	21,519
Craft and Industrial	2,934	243,220
Consumption	14,400	3,436,614
Miscellaneous	19,324	5,351,791
Grand Total :	64,096	12,197,346

Table XIV-B-2

DEVELOPMENT OF COOPERATIVES
1969 - 1973

Year	Total	Members
1969	15,000	2,250,000
1970	16,000	2,500,000
1971	18,000	2,750,000
1972	20,000	3,000,000
1973	22,000	3,400,000

nior Secondary Cooperative Schools (SKOPMA) into Senior Cooperative Economic Highschools, and making Cooperative Academies function as in-service training institutes for the personnel of the Directorate General for Cooperatives.

2.2 Development of Organization and Control

Following steps will be taken:

(a) To give legal status to and register cooperative organizations, in accordance with Law No.12 of 1967 on Bases of Cooperatives;

(b) To develop the organization of cooperatives and the Indonesian Cooperative Movement (GEKOPIN), following the "guiding and loving leadership" method;

(c) To carry out consolidation and rasionalization in order to foster a healthy mental attitude, organization and efforts;

(d) To conduct education in management, bookkeeping and control of cooperatives;

(e) To exercise control, of an educative and guiding character, over the bookkeeping of cooperatives;

(f) To collect more statistical data about cooperative organizations and movements throughout Indonesia.

2.3 Guidance for Cooperative Undertakings

Following steps will be taken:

(a) To supply sufficient number of cadres who, at any time, can readily serve cooperatives;

(b) To provide tax and credit facilities to cooperatives and freedom to move in the field of production and services;

(c) To create a profitable climate for the cooperative movement;

(d) To establish a Credit Guarantee Foundation for Cooperatives.

CHAPTER XV

NATIONAL DEFENSE AND SECURITY

1. General

Development of national defense and security cannot be separated from national development as a whole. On the one hand, national development is aimed at the promotion of the nation's prosperity; on the other, the nation's prosperity should be secured against every form of threat which will disturb it, or even, in an open war might destroy it. Therefore, a force is necessary to oppose whatever threatens the survival of the nation, and with armaments adequate to foil those threats.

The basic strength of national defense and security is the armed forces; and even though the factors in it are various in their kind, it is the armed forces which holds the most important role, and should be developed and expanded in order to be able to defend and to protect the nation against any form of threats.

2. National Defense and Security

2.1 Policy of national defense and security

Basically, the policy of national defense and security is aimed at the following targets:

a. Inwardly, to create an atmosphere which is secure, peaceful, orderly, and dynamic, to form the basis and climate for carrying out development in every field.

b. Outwardly, to participate in securing world peace and realizing stability in South East Asia.

c. To be alert to every possibility of threat in any form which might disturb or endanger the survival of the nation and the state.

2.2 Strategy of national defense and security

Strategy in this area is directed toward shaping, developing, and making full use of the powers of the security forces to guarantee the realization of national defense and security policy.

2.3 Functions of national defense and security

a. To establish a national defense and security force, with the armed forces as the central component in addition to other potentials.

b. To maintain and to improve national defense in all fields, ideological, political, social, and cultural as well as military.

c. To maintain and to improve national vigilance and preparedness.

d. To develop integration between the armed forces and internal integration within the respective forces.

3. The Civic Mission of the Armed Forces of the Republic of Indonesia

As a result of the struggle of the armed forces to maintain independence and the value of life, they have a position and role as the authoritative functional group to decide the course of the nation together with the other social forces.

The main civic task of the armed forces during the development period is to actively participate in every effort, endeavor and activity of country and nation in the field of development, in accordance with its capabilities.

4. Condition Evaluation

The condition of the economy at present is the main limiting factor in the development of national defense and security. Until 1973/74, the nation's resources will only be sufficient to finance economic development while for defense the funds will be very limited.

However, there should be a force sufficient to protect development from anything that threatens it.

The possibility of an external attack is at present very minimal.

The possible threats that would trouble development implementation are more likely to take the form of espionage, sabotage, infiltration, subversion, and rebellion, whether from within the country or from outside.

Therefore, optimally, the national defense and security forces should have the power to oppose threats of this nature, and to eliminate all their negative effects, without neglecting necessary preparedness against external attack.

The Indonesian armed forces, as the essential arm of national defense and security, needs time to consolidate and stabilize itself after the effort of fulfilling the Trikora and Dwikora and of maintaining peace and order in the country. Consolidation and stabilization will form a basis for further progress. As a civic action force, the armed forces, in view of present conditions in the political, economic, social and cultural fields, is reviewing it's role and function in order to contribute to development efforts in every field.

5. Main Policy

As carrying out of development in national defense and security is severely limited by lack of funds, it must be approached in accordance with the existing situation. In the round of development for the coming five years the accent falls on the following :

5.1 Conceptual matters

a. Settlement of a basic law for national defense and security and necessary regulations.

b. Further settlement of the concept of our national strategy.

c. Decisions on the size and composition of the land, sea, and air forces and the police.

d. Development of an armaments system that is social as well as technological, a military equipment industry and construction authority.

e. Establishment of a system of command and control.

f. Establishment of a system of administration, logistics, personnel and education.

g. Establishment of a system of endurance training.

h. Decision on levels of preparedness for particular periods, especially during the implementation of the Five-Year Development Plan.

i. Establishment of a program of consolidation and stabilization.

The above conceptual basis is necessary for determining the course of further defense and security development.

5.2 Within the framework of the consolidation and stabilization of the defense and security forces, and of providing security for the national development efforts as well as in the area of the concept of our national strategy, a regrouping of forces is being carried out along with selective replacements of personnel and equipment to improve the quality of the armed forces in general.

5.3 Within the framework of the function of the armed forces, a full review will be made of problems connected with their function as a social force.

5.4 To place once more in proper proportion the conception and execution of civic action under the Indonesian Armed Forces' Civic Mission.

5.5 Development enterprises in other sectors that are carried on by the armed forces will be restricted to those which cannot be done by civilians.

6. Measures

1969/70 1. Settlement of conceptual plans.
1970/71 2. Realization of preparedness at the decided level.
3. Carrying out of consolidation and stabilization of forces.
1971/72 1. Realization of preparedness at the planned level.
1972/73
1973/74 2. Realization of conceptual plans.
3. Carrying out of a phased transfer of duty for soldiers linked to development activities in other sectors.
4. Preparation for carrying out the development of the defense and security forces in the second five-year plan.
5. To continue the consolidation and stabilization of forces.

1969/70	1970/71	1971/72	1972/73	1973/74	1974/75
Realization of the Five-Year Development Plan is the Realization of Defense and Security Development Infrastructure					SECOND FIVE-YEAR DEVELOPMENT PLAN
Settlement of Matters 1. Legal/Conceptual. 2. Consolidation and Stabilization of Forces.		Realization of Plans 1. Structure of forces and commanding and controlling system. 2. System of logistics and the construction of technological armaments system. 3. Replacement of personnel and equipment (selective, limited). 4. Carrying out job transger of soldiers. 5. Re-structuring of the function of the armed forces. 6. Control of civic actions. 7. Integration of the armed forces, fundamentally and conceptually. 8. Realization of the function of the armed forces, fundamentally and conceptually.			
			Preparation for the further development of Defense and Security.		

CHAPTER XVI

RESEARCH AND STATISTICAL DEVELOPMENT

A. RESEARCH

1. The situation at present

It is a fact today that the proper application of science and technology in the development of a country can accelerate efforts to increase the welfare of the people. Therefore it is necessary to develop and expand scientific resources that they may be utilized in the interest of the country's development.

Furthermore, particularly in developing countries, the extensive application of the science and technology now available, which result from foreign research, is the shortest way toward social progress. An evaluation of science and technology at present can be based on: 1) the conditions of scientific infrastructure, and 2) qualitative evaluations.

The evaluation of scientific infrastructure is based on the number of scientific and technological experts, especially those working in the field of research, on the number of scientific and research institutions engaged in scientific activities and their physical condition, i.e., the condition of their scientific instruments, scientific materials, their literature, and the funds available and used in the interest of science and technology.

A qualitative evaluation concerns values that are related to scientific results (such as: the scientific value of these results), besides the quantity of scientific articles produced. Moreover, the stage of science and technology in a country is measured also by the speed with which scientific and technological discoveries are put into practice.

The collection and evaluation of quantitative data is still incomplete. In the future data collecting must be carried out regularly and the method of evaluation, especially, must be improved. What will be presented below is based on data that can be compiled so far. It should be remembered that there are still many scientific and research institutions or organizations which do not feel the need to collect quantitative data.

2. Scientific Organizations in Indonesia

In our country scientific activities are carried out by:

(i) research institutions within ministerial Departments;
(ii) universities;
(iii) research institutions outside the Departments or non-departmental institutions.

a. Research conducted by research institutions within the Departments is primarily aimed at solving technical problems and at rendering assistance in the execution of the work of the relevant Departments. In this way research that is being carried out is more tuned to the respective Departments; in other words, it is more "mission-oriented". In some institutions testing and control are also carried out.

b. Within the universities basic research and applied research are carried on that are closely related to the function of educating scientific personnel. Furthermore, in the effort to realize their three-fold function, universities are directing their research toward solving the problems and satisfying the requirements of society. Among universities themselves a distinction is made between three categories, i.e. Feeder Universities, Intermediate Universities and Junior Colleges. In this classification, research is being done primarily by the Feeder Universities.

c. To this categorie belong research institutions within the Institute of Sciences in Indonesia (L.I.P.I.) and the National Atomic Energy Commission. Then there are the State Administration Institute, which is engaged in scientific activities, and the Central Bureau of Statistics, which plays an important role in the statistical world in our country. Research being conducted by these organizations is not just limited to serving the interest of one particular department alone, but tackles problems in a broader manner.

d. Scientific and Technical Manpower

Quantitatively, the total number of graduates from national universities is sufficiently large. In a Report of the Statistical Team of Higher Learning in 1967 it was stated that the number of graduates from 24 State Universities (out of the existing 40 State Universities) from 1950 to 1967 was 21,832 specified into:

Exact Sciences	:	11,050
Non-exact Sciences	:	9,345
Teaching Science	:	1,417

Total:		21,832

Universities are the primary source of high-level scientific manpower working in the field of research. But in order to become a qualified research scientist a long period of time is required with the consequence that the field of research is always short of workers. From surveys and other data issued in one or another form of research report, several points can be mentioned:

(i) the number of research workers and technicians in some fields of research is minimally adequate, if this number is related to the research activities being undertaken by the respective research institutions at the present time (although other standards of measurement must still be applied).

(ii) There is a shortage of research workers and technicians if the institutions concerned are to fulfill their task as research institutions well.

(iii) There is a great need for experienced research workers i.e., those from whom can be expected advice and instructions for the implementation of research.

(iv) A great need is being felt for experts, who are specialists in a certain field, such as scientific documentalists.

Then there are several factors to which the continuing need of research for experts can be ascribed namely:

(i) the economic situation, which makes it impossible for a research worker to give his full attention to research;

(ii) lack of proper remuneration of a research worker, so that research cannot be regarded yet as a working field, in which a person could make a career;

(iii) the need for capable persons in government and other sectors, which causes a drain in the field of research and other scientific activities.

Twenty research institutions, which have returned a questionnaire, have stated that they are in need of 645 research workers, who fall under the following categories:

medical science 12, physical sciences 86, technical science 433, agriculture 13, social science 6, no specification 97.

3. Scientific Literature

Scientific Literature, i.e. scientific books and periodicals, as well as microfilms constitute one of the important resources for the conduct of research of high quality. But since 1958, that is since the introduction of stronger restrictions on the use of foreign exchange, the purchase of scientific literature from abroad has been limited.

With aid from several foreign organizations the difficulty in getting scientific books for the country has to a small extent been overcome.

However, subscriptions to scientific periodicals from abroad has remained an acute problem. Besides that the decreasing number of Indonesian scientific publications, which is due to various reasons (see below), has made an exchange program of periodicals ineffective. This situation obviously handicaps the flow of the most recent results in the fields of science and technology from abroad. The absence of up-to-date knowledge on the progress of science and technology leads to the possibility of duplications in research, i.e. repetitions of things already done or facts already known. This is a waste of manpower, funds and time.

4. Scientific Information and Communication

Scientific publications are an important media for scientific information and communication at home. The decline in the number of scientific books and periodicals being published may be caused by : i)slackened research activities, ii) high costs of printing which have forced a cessation or cut in the publication of scientific periodicals.

The high cost of printing has resulted in the emergence of publications or reports on surveys and research in mimeographed form. But the quantity of, as well as the fields covered by, the reports is difficult to ascertain. This is due to various reasons, among them:

(i) the number of mimeographed reports is quite limited, about 500 only,

(ii) the reports are sent to persons who are thought to need them and not to libraries,

(iii) there is no government body appointed to take care of keeping the "copy-righted" and other government publications,

(iv) there is no organization charged with keeping a register of publications that can be used by individuals who want to know of materials and reports that have been written in their fields.

Theses for graduate degrees and dissertations for doctorate degrees are not regularly reported to the Directorate General of Higher Education with the consequence that it is difficult to know what has already been written.

The decline in the frequency of domestic publications and the retarded flow of information has resulted in limited knowledge of research being conducted in various institutions, with the result that the probability of duplications becomes greater.

Scientific conferences, seminars, etc., either at home or abroad, constitute important media for scientific communication. Such meetings enable exchanges of ideas and knowledge on progress made in the respective fields.

The country's economic situation allows for only a limited opportunity for Indonesian scientists to attend scientific conferences abroad.

Communication between research institutions and the users of research results is an important factor, since the influence of research and development on the economy depends on putting the results to use in new industrial products, to increase production in agriculture, etc. In this, the extension worker and an adequate supply of funds to experiment with the use of new discoveries or new methods play a most significant role. In this connection investigation into the influence that research has on the country's economic development and on bottlenecks in the flow of research results to the users is needed.

5. Scientific Instruments

Suitable and modern scientific instruments are important to research activity. Surveys and reports on this matter have brought out, among other things, the following points :

(i) institutions which have not been affiliated with, nor received any aid from, foreign organizations since 1958 have almost no new scientific instruments or replacements;

(ii) the unavailability of foreign exchange for the replacement of worn out or used-up materials and for the purchase of needed chemicals has forced research activities to end or suffer delays;

(iii) for newly created institutions, the problem being faced is how to get scientific instruments, materials and chemicals;

(iv) the maintenance and repair of scientific instruments, whether for larger or for smaller damages, requires skill in certain special fields. But it may happen that the instruments cannot be repaired, because of lack of the necessary spare parts.

Thus, while we still must think about how to get the most common scientific instruments, raw materials and chemicals, other countries have made further advances in their equipment. This situation is a handicap for some research activities or delays them. The history of science and technology shows that up-to-date scientific instruments constitute one of the factors contributing to intensive research, which leads to significant findings.

6. Space Facilities

a. The availability of space, which is minimally adequate for the conduct of research activity is a factor that can contribute to enthusiasm for work. For long-existing institutions the problem is how to maintain and/or expand the existing space.

b. For new institutions the problem is how to meet the minimum need for working space.

7. The Condition of Research in Indonesia

It must still be investigated how far research results have found practical application and to what extent they influence the development of society. Meanwhile some points may be noted :

a. In the field of health, results of research may be more rapidly put into practice. This is primarily due to the fact that those doing research, i.e. schools of medicine, can apply them at once in their daily practice. New findings are important contributions to medical science, especially to the promotion of public health. Aid from international organizations will make possible effective eradication of many social diseases. In the pharmaceutical field much research still needs to be done on the possibility of using materials found in our own country.

b. In the field of agriculture, apart from a large number of technical problems that have to be tackled, social and economic factors play an important part in the application of modern technological results. These factors include:

(i) the farmers lack of capital to risk on experimenting with the application of new findings,

(ii) the problem of marketing,

(iii) the problem of infra-structure,

(iv) extension work and various other social factors, such as tradition, etc.

c. It has been said that we are thirty years behind in the field of industry and technology. This is due to, among other things :

(i) slow progress and inadequacy of industrial research,

(ii) lack of scientific attitude in the field of industry,

(iii) the absence of adequate capital to carry out experiments on new industrial applications,

(iv) the problem of marketing of domestic products.

In addition, social and economic factors play an important role.

d. Social science plays an important part in our national development, not only as an instrument for discovering new knowledge, but also to enable us to take what steps are needed within the society. The social sciences can obtain the information that is needed to better understand the condition, implications, and goals, or changes that are necessary for a society before an important decision is published The facts show that research being carried out by the various branches of the social sciences can not yet produce the information or data needed in our society.

e. In planning for development, statistical data constitute urgently needed instrument. It is a fact that in the past, and also at present, statistical data generally are :

(i) not complete,

(ii) limited in their presentation,

(iii) often presented in duplications,
(iv) wanting in reliability,
(v) very slow in their compilation.

These things have caused planning to be hampered by difficulties in acquiring the necessary data. This situation is due to a number of factors, besides lack of statistical experts, facilities and funds :

i) There is no favorable climate yet for an intensification of statistical activities or for an improvement in the quality of statistical methods.
ii) There are no formulations yet of the specification, standardization and classification of various statistics which are oriented toward the development of Indonesia; this has resulted in the fact that some aggregate statistics cannot yet be compiled, etc.

Qualitative evaluations has still to be improved before we can arrive at a more objective analysis in order to know the level of scientific knowledge and technology in our country and to find the bottlenecks in our efforts to promote them and to apply them in the society. The availability of this knowledge will enable us to determine more precisely the targets of development.

8. The Problems being faced

Research should be directed toward successful implementation of the Five-Year Development Plan, which includes the following sectors :

a) intensification and extensification of agriculture, animal husbandry, estate farming and forest exploitation,
b) the development of agriculture-related industry,
c) the development of light industry,
d) the development of medium-sized industry which meets the needs of the above-mentioned a, b and c.

e) the development of infra-structure and communications,
f) the planning of heavy industry for the next stages of development.

For the successful execution of this program it is necessary to carry out research of high quality. The implementation of research of this kind is a most crucial problem today, since factors must first be created that support such research activities.

These factors, among other things, are :

a. a political as well as an economic climate, which provides an opportunity for the development of research activities and for the application of research results,
b. up-to-date scientific literature,
c. adequate funds,
d. research workers and technicians that are adequate in the qualitative as well as in the quantitative sense.

Indonesia is a developing country in the field of technology, while its industries are still backward and there is an absence of basic industries. Considering all these factors, efforts toward the acceleration of activities and toward the achievement of research of high quality within the scope of the realization of the Five-Year Development Plan should be aimed at improving the scientific infra-structure and at raising the status of scientific resources, that is, by providing the necessary manpower for research and technicians, both in the quantitative and in the qualitative sense, scientific literature, scientific instruments, and the creation of a scientific atmosphere within the society.

In giving direction to research activities it is necessary to give priority to applied research without disregarding the conduct of basic research, which is still needed now as a basis for applied research. In this context atomic research should be given due attention.

9. Direction

In order that research really include activities which not only support the process of the Five-Year Development Plan, but also serve as a basis for future development efforts, in the period of the Five-Year Plan attention will be concentrated on :

9.1 The Rehabilitation of Existing Research Institutions

To make a start on the exercise of research efforts of high quality within the first period of the Five-Year Development Plan, during the first years priority will be given to the rehabilitation of existing basic facilities, so that research institutions will be able to fulfill their task well, i.e. :

- a) a fair supply of scientific instruments, chemicals and basic materials. For the time being those materials have still to be imported, so that foreign currency must be provided for this purpose;
- b) scientific literature, especially up-to-date periodicals from abroad. In order to meet these needs also sufficient foreign exchange must be supplied;
- c) the upgrading of research workers and technicians and a gradual increase of their number;
- d) the provision of adequate funds for research activities.

A continuous survey of the condition and needs of research institutions must be conducted. In the past the development of research institutions did not follow any particular design, based on actual needs. Therefore, at this time, an appropriate evaluation should be made of their right to exist and in the future new research institutions should be established in such a way that they will be able to carry out their function, which is really useful, and that the possibility of duplications will be avoided as much as possible.

After the rehabilitation of existing research institutions, consistent attention must be given to :

9.2 The Training of Scientific Manpower and Technicians

It takes a long time to obtain scientific manpower and technicians. The upgrading of the level of their knowledge of research methods and new methods of approach should be carried out regularly. Meanwhile dedication to research work must be nurtured.

The quality of these workers very much depends on the education they have received. For this reason attention must be given to science education at the secondary school and university level.

A continuous survey should also be made in the future of the number of scientists and technicians, the fields of their expertise, their distribution and the work they are doing, and of the need for these workers.

Apart from the above-mentioned points, those who work in the field of research must be given the opportunity to concentrate their attention on their main job.

9.3 Expansion of Communication and Information in the Field of Science and Technology

In addition to efforts to secure continuity in the flow of scientific information from foreign countries, it is necessary to accelerate production of domestic scientific publications. Due attention should be given to reducing printing costs for scientific publications at home.

Information in the field of science and technology can play an important role in the development of our industry by speeding information to industrialists on new inventions in their respective fields acquired either at home or abroad.

In the case of exchange of information through scientific literature, attention should be directed primarily toward existing information centers. In this respect the National Center of Scientific Documentation of the Institute of Sciences in Indonesia (L.I.P.I.) plays an important role.

The holding of scientific symposia, seminars, congresses, etc., is a most common thing in the realm of science as a medium for exchange of information. Such communication activities should be intensified and expanded by sponsoring scientific meetings, national, regional or international.

9.4 Scientific Instruments

Up to the present time, scientific instruments, basic materials and chemicals that serve the interest of research have still to be imported. Therefore, research efforts directed toward the production and repair of such instruments must be augmented. In this respect the National Instrumentation Institute of L.I.P.I. can play an significant role.

A continuous survey must be conducted of the location, situation and use of scientific instruments in Indonesia, especially those that are specifically scientific.

B. THE DEVELOPMENT OF STATISTICS

Introduction

The prime aim of the program in the field of statistics is to develop the data for assessing progress and forecasting difficulties in the specific sectors. It is clear that statistical data collection, within the context of the Five-Year Development Plan of 1969 - 1973, is high on the priority scale of the Plan.

Since the basic problem of Indonesia during this Five-Year Development Plan is food, statistical data in this sector will get prime priority. This key area includes data collection concerning agricultural areas, crop areas, and production per hectare. Such data are especially important for rice production, in order to determine the programming of rice import at definite times when needed, the storage requirements, etc.

The agricultural census, based on a large sampling program, is also important as a source of data on the relationship between the input and output factors. So is the case with population census and social economic surveys all of which constitute important activities in the field of statistics.

1. Agriculture

Agricultural data on farm-areas, crops, products, etc., are usually obtained through agricultural and statistic extension workers in villages. These data are sent to the Central Bureau for Statistics in Djakarta via District and Governors offices.

Although this system has been used for long, it is clear that two aspects of it will have to be improved, those are:

1) The time of the delivery of those data will be improved so that data could be collected within the month for which it pertains, and it will reach the Central Bureau for Statistics in the following month.
2) A cross checking of the reliability of the data will be made, for instance by using a sampling system. For this purpose an experimental project has been set up in Jogjakarta.

With the various existing programs to increase production, among others by the "BIMAS" (Mass guidance system), great variation in outputs may be expected. It is necessary therefore to improve the system of production-estimate by increasing the number of sampling-plots and a better organization of the sampling effort. The collection of data on rice output is essential. Hardly less important is the collection of data on other food crops, such as corn, beans, etc., which can also be collected by way of sampling.

Since 1953 there has been practically no surveys made regarding smallholder plantations, which have been estimated to produce 2/3 of the entire rubber production of Indonesia and 80 % of Indonesia's copra production. Providing these statistical figures will have priority in the area of export crops. The surveys will be incorporated in the village statistical data collection.

2. Population Census

No less important than the field of agricultural statistics and agricultural census, is the population census. The population census is important for the following reasons:

1) To supply correct figures for the present size and composition of the population;
2) In connection with preparation of the electoral rolls for the general elections;
3) To serve as a frame for other statistical purposes (to determine population distribution);
4) As a means of checking of other surveys, the social economic surveys, etc.

3. Social Economic Survey

Social economic surveys will be held every year to supplement the periodic population census. The questions posed every year in the survey sheet need not be identical, but they will include data needed for the national income estimates.

4. Industry

Priority also is given to the industrial census suggested to be held after 1974. Surveys suggested in this field are those in connection with large and small industries. (Note: Small handicraft industries are included in the social economic surveys).

5. Trade

Not less important are the figures in the field of trade. In developing our statistics, we should at the minimum perfect the statistical data on export and import volumes and prices.

Price statistics will emphasize the price development of basic and essential goods with high priorities (such as fertilizers, insecticides, etc.). Especially in regard to these essential goods, research are to be made concerning the classification of these goods.

6. Village Statistical Data

It is necessary to improve village statistical data on birth, death, population increase, farm area, livestock, handicraft etc.

There are three possibilities for improvements:

1) The present, permanent system, but with training and improvement of the enumerators;
2) By the use of "independent sampling" of every district or village;
3) By making use of one sample from several villages to be used as a baseline for a greater area.

All three of these possibilities are still being studied.

7. The Organization of Statistics

The Central Bureau for Statistics collects statistical data from its own field staffs as well as from departments. Some positive aspects in the field of statistics are:

1) The existence of the Law on Statistics of 1960;
2) The existence of a training program - the Academy of Statistical Sciences;
3) The existence of branches throughout most of Indonesia (3,000 in sub-district levels);
4) The existence of previous censuses (population census in 1960; agricultural census in 1963).

The most important thing is to place the Central Bureau for Statistics closer to the center of Government's operations. The improvement of statistical data constitutes an important part of the Five-Year Development Plan.

According to the Basic Law on Statistics 1960, the Central Bureau for Statistics is to carry out the co-ordination of statistical data collection. For this purpose consultations must and will be held with Departments directed toward the development of national statistics.

8. PROVINCE: LAMPUNG

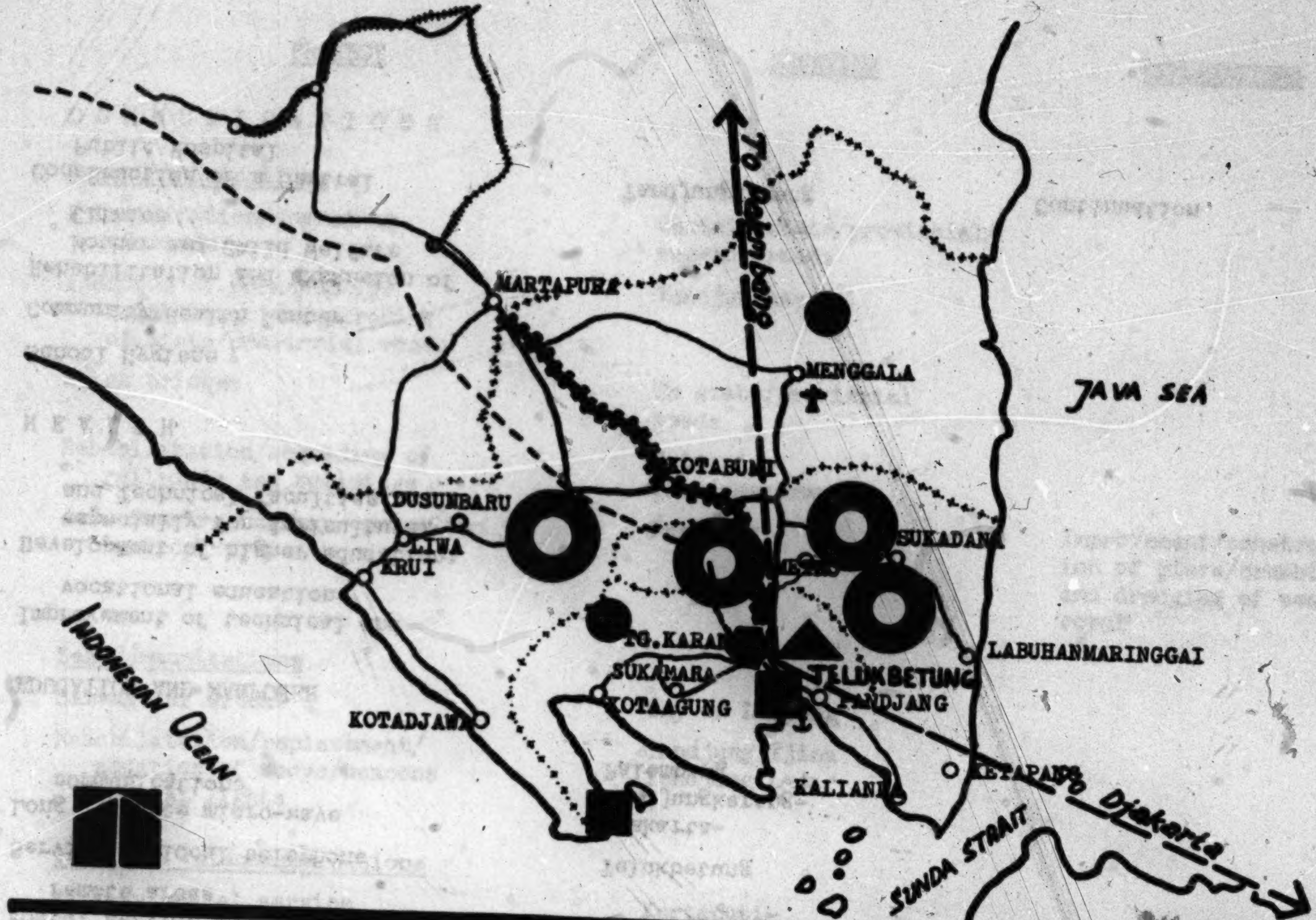
PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increase of extension services		
Rice production on tidal rice fields		
Estates		
Improvement of smallholder plantations and processing units		
Rehabilitation, rejuvenation and conversion of rubber estates		
Fishery and Forestry		
Care of fish resources and rehabilitation of lakes		
Flood and erosion control		
Increase of timber production and processing		Reforestation

*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Animal Husbandry		
Protection, research and mass guidance		
Irrigation		
Survey and planning of river basin development		
Rehabilitation and expansion of irrigation and wet rice cultivation projects		Punggur Utara Way Djepara Way Umpu Way Penggubuan
Tidal rice field project		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and expansion of light and home industries and processing of agricultural products		
Mining		
Petroleum and mineral gas	Eastern shore	Off shore
Electric Power		
Increase of installad electric power		

PROJECT	LOCATION	EXPLANATIONS
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads	Certain state/provincial/ regency roads	
Addition of workshop for rehabilitation/upgrading of state/provincial roads	Tandjungkarang	
Weigh bridges	On state/provincial roads	
Rehabilitation/upgrading of railroads and buildings	Baturadja-Tandjungkarang	
Java-Sumatra railway connection service	Pandjang	Improvement/construction of piers/crushing and dredging of sea coral
Sea Communications		
Salvage of wrecks	Bay of Lampung	
Rehabilitation/replacement/ addition of buoys/beacons coastal lights	Tandjung Tjina Tandjung Lajar	
Post and Telecommunications		
Railway postal service	Kertapati-Pandjang	

PROJECT	LOCATION	EXPLANATIONS
Postal service in rural and remote areas	Scattered	
Service of local telephone	Telukbetung	
Long distance micro-wave communications	Djakarta-Tandjungkarang-Palembang	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education: especially for Agricultural and Technical faculties		
HEALTH		
School Hygiene		
Community Health Center		
Rehabilitation and expansion of Mother and Child Welfare Clinics		
Construction of a Central Public Hospital	Tandjungkarang	Continuation


To Palembang
MARTAPURA
MENGGALA
JAVA SEA
KOTABUMI
DUSUNBARU
LIWA
KRUI
METRO
SUKADANA
TG. KARANG
SUKAMARA
KOTAAGUNG
TELUKBETUNG
PANDJANG
LABUHANMARINGGAI
KOTADJAWA
INDONESIAN OCEAN
KALIANDA
KETAPANG
To Djakarta
SUNDA STRAIT

TARGET REHAB. & UPGRAD.
OF ROADS '69/70 - 73/74 = 620 KM.

LAMPUNG

9. PROVINCE: WEST JAVA

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops		
Intensification of Food production		
Improvement of extension services		
Production of high-yielding seeds		
Estates		
Improvement of smallholder plantations and processing units		
Rehabilitation of rubber plantations		
Crumb rubber factory	Sukamadju Pangledjar Government Estate XIII	
Rehabilitation of tea estates	Government Estate XII Government Estate XIII	
Fishery and Forestry		
Improvement of fishing harbors	Labuhan	
Supply of fingerlings and rehabilitation of fish hatcheries		

PROJECT	LOCATION	EXPLANATIONS
Normalization of fishpond channels		
Timber seedlings	Bogor, Bandung, Madjalengka	
Development of multipurpose forests		
Increase of timber production and processing		
Development of industries processing forest products	Bogor, Bandung	
Wild life and forest preservations as tourist attraction	Udjungkulon, Pulau Dua, Papandajan Mountain	
Forestry Research	Bogor	
Cattle Breeding		
Protection, research and mass guidance		
Research in animal diseases	Bogor	
Irrigation		
Survey and planning of river basin development	Tjimanuk Tjitanduj	
Rehabilitation and expansion of irrigation projects	Djatiluhur Tjiudjung Tjidurian	

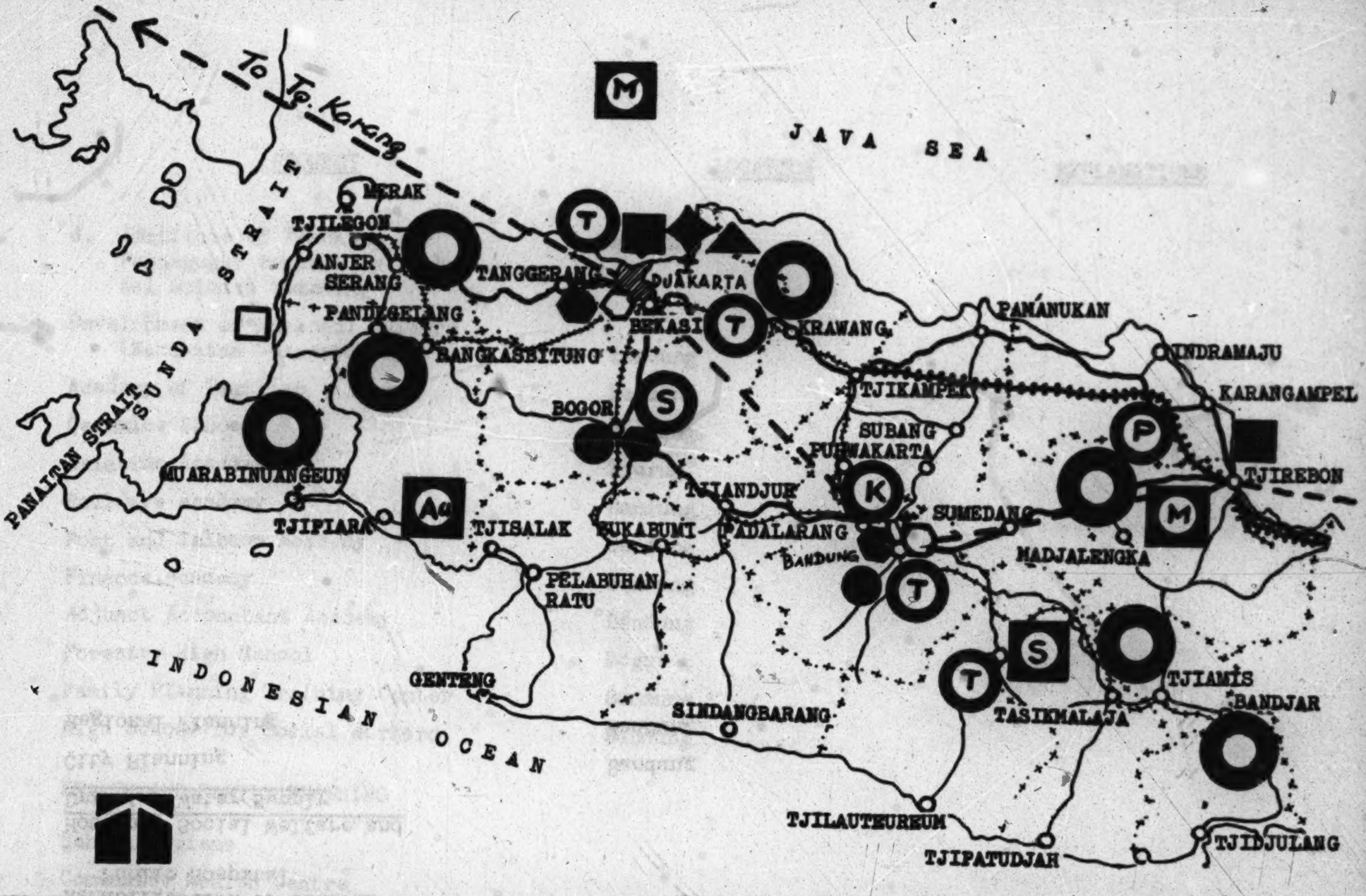
PROJECT	LOCATION	EXPLANATIONS
	Teluk Lada Tjelituh Tjipamingkis Tjikunten II	
Village irrigation water pumps		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation of paper mill	Padalarang	
Cement factory	Tjibinong	
Fertilizer plant	Tjirebon	
Tire factory	Bogor	Expansion of Good Year factory
Rehabilitation of textile factories		
Textile production equipment	Bandung	
Fish processing		
Mining		
Gold mine	Tjikotok	
Sulphur mine	Wanaradja	
Petroleum and natural gas	Off-shore	

PROJECT	LOCATION	EXPLANATIONS
Electric Power		
Transmission and distribution network	West Java	Rehabilitation
Increase of installed electric power		
C O M M U N I C A T I O N S		
Land Communications		
Rehabilitation/upgrading of roads and bridges	Scattered	Certain state/provincial/ regency roads
Workshop for rehabilitation/ upgrading of roads	Bandung, Tjirebon	
Rehabilitation/upgrading of railroads, signal system and telecommunications	Tjikampek-Tjirebon and other some other tracks in West Java	
Sea Communications		
Rehabilitation/addition of quays, warehouses, water supply, electricity and loading and unloading equipment	Tjirebon	
Post and Telecommunications		
Express delivery postal service	Bandung-Djakarta Bandung-Tjirebon	

PROJECT	LOCATION	EXPLANATIONS
Mobile postal service		
Post offices in villages		Scattered over the whole region
Institute for Research in Telecommunications	Bandung	
Micro-wave telecommunications	Djakarta-Bandung Tjirebon-Semarang	
Local Telephone Service	Djakarta, Bandung Tjirebon	Rehabilitation and expansion
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education:		
a. Padjadjaran University, especially the faculties of Agriculture, Fishery, Animal Husbandry and Forestry	Bandung	
b. Bandung Institute of Technology, especially the Biochemical faculty and the Mineral Technology faculty	Bandung	
c. Bogor Agriculture Institute, all faculties	Bogor	

PROJECT	LOCATION	EXPLANATIONS
d. Institute of Teaching and Paedagogy, especially Technical Science Teaching	Bandung	
Development of National Culture (Karawitan Conservatory)	Bandung	
Academy of Textiles	Bandung	
Ceramics School	Bandung	
Aviation Academy	Tjurug	
Railways Academy	Bandung	
Post and Telecom Academy	Bandung	
Finance Academy	Bandung	
Adjunct Accountant Academy	Bandung	
Forestry High School	Bogor	
Family Planning Training Center	Bandung	
High School for Social Workers	Bandung	
HEALTH AND FAMILY PLANNING		
School Hygiene		
Community Health Centre		
Rehabilitation and expansion of Poli-clinics and Mother and Child Welfare Clinics		

PROJECT	LOCATION	EXPLANATION
Rehabilitation of Central Puhlic Hospital	Bandung	
Housing, Social Welfare and Drinking Water Supply		
City Planning	Bandung	
Regional Planning	Bandung	


To Tg. Karang
JAVA SEA
SUNDA STRAIT
PANAITAN STRAIT
INDONESIAN OCEAN
MERAK
TJILEGON
ANJER
SERANG
PANDEGELANG
RANGKASBITUNG
TANGGERANG
DJAKARTA
BEKASI
KRAWANG
PAMANUKAN
INDRAMAJU
KARANGAMPEL
TJIREBON
TJIKAMPEK
SUBANG
PURWAKARTA
BOGOR
MUARABINUANGEUN
TJIPIARA
TJISALAK
SUKABUMI
TJIANDJUR
PADALARANG
BANDUNG
SUMEDANG
MADJALENGKA
PELABUHAN RATU
GENTENG
SINDANGBARANG
TJILAUTEUREUM
TJIPATUDJAH
TASIKMALAJA
TJIAMIS
BANDJAR
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TARGET REHAB. & UPGRAD.
OF ROADS '69/70 - 73/74 = 1865 KM.

WEST JAVA

10. PROVINCE: SPECIAL TERRITORY OF GREATER DJAKARTA

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Improvement of extension services		
Estates		

Fishery and Forestry		
Intensification of sea fishing		
Improvement of fishery harbors		
Fish technological institute laboratory		
Research on fish		
Animal Husbandry		
Project for medicine and surgical instruments industry		

*) Indonesian term is Palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Irrigation		
Flood control project	Greater Djakarta	
INDUSTRI, MINING AND ELECTRIC POWER		
Industry		
Expansion/modernization of Intirub (Indonesia Tire and Rubber Co.)	Djakarta	
Improvement of fishing equipment industry	Djakarta	
Rehabilitation of textile factories	Djakarta	
Estate industry	Djakarta	
Electric Power		
Steam-power electric plant Tandjung Priok I, II, III and IV	Tandjung Priok	
Power Research Institute	Djakarta	
Geo-thermal electric plant	Djakarta	
Electric power workshop	Djakarta	
Gas distribution network	Djakarta	Rehabilitation

PROJECT	LOCATION	EXPLANATIONS
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of railroads and installations	Djakarta-Tjirebon	
Workshop for the rehabilitation/upgrading of roads	Tangerang	
Rehabilitation/upgrading of signal system, railway telecommunications and electronics		
Air Communications		
Meteorological station	Djakarta	
Airfield special project	Kemajoran	
Sea Communications		
Harbor facilities	Djakarta	
Salvage of wrecks and placement of buoys and beacons	Djakarta	
Shipping education	Djakarta	
Post and Telecommunications		
Improvement of postal and clearing services	Pasarbaru, Kebajoran, Rawamangun, Pasar Kodja, Grogol	

PROJECT	LOCATION	EXPLANATIONS
Express delivery postal network	Djakarta	
Mobile postal service	Djakarta	
Underground telephone cables	Djakarta	
EDUCATION AND MANPOWER		
Improvement of primary school education		
Increase of vocational education in secondary schools		
Vocational Training Center	Djakarta	
Improvement of technical and vocational education		
Improvement of education for teachers		
Development of higher education:		
a. University of Indonesia, especially the faculties of Technology and Medicine	Djakarta	
b. Institute of Teaching and Paedagogy, especially Technical Science Teaching		
Development of National Culture (Art center, Karawitan Conservatory, Museum)	Djakarta	

PROJECT	LOCATION	EXPLANATIONS
Increase of sports activities		
Education: Agriculture, Community health center personnel, Cooperatives, Teachers of religion, National Islamic Institute, Maritime Academy, Finance, Accountant assistants)		
Information Academy	Djakarta	
School for senior officials of the Department of Information	Djakarta	
Radio Cadre School	Djakarta	
Supply and utilization of labor force (labor force training center)		
HEALTH AND FAMILY PLANNING		
School Hygiene		
Community Health Center		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Rehabilitation of the Central Public Hospital	Djakarta	
Rehabilitation of public hospitals	Djakarta	Fatmawati, Persahabatan hospitals

PROJECT	LOCATION	EXPLANATIONS
Rehabilitation and upgrading of medical laboratory		
Preparation of Central Laboratory	Djakarta	
Construction of emergency hospital	Djakarta	Preparation
Eradication of contagious diseases		
Quarantine Stations	Tandjung Priok Kemajoran	
Provision of drugs and medical equipment: Indreased production of medicines and medical equipment	Djakarta	
National Family Planning Training Center		
Housing, Social Welfare and Drinking Water Supply		
City Planning	Djakarta	

11. PROVINCE: CENTRAL JAVA

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increase of extension services		
Production of high-yielding seeds		
Estates		
Improvement of smallholder plantations and processing units		
Crumb rubber factory	Balong	
Rehabilitation of tea estates	Government Estate XVIII	
Rehabilitation and modernization of sugar factory		
Rehabilitation rubber estates		
Fishery and Forestry		
Improvement of fishing harbors	Semarang Tjilatjap Tegal	

*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Supply of fingerlings and rehabilitation of fish hatcheries		
Utilization of swamps for fish cultivation		In order to produce fish and rice
Normalization of fishpond channels		
Erosion control	Bengawan Solo, Seraju Kidul, Pekalongan	
Timber seedlings		
Increase of production and processing of teak and other timber		
Animal Husbandry		
Protection, research and mass guidance		
Irrigation		
Survey and planning of river basin development	South Kedu Progo River Bengawan Solo	
Rehabilitation and expansion irrigation projects	Sempor Tadjum Pemali, Tjomal and the surrounding areas Gambarsari and Pesanggrahan	

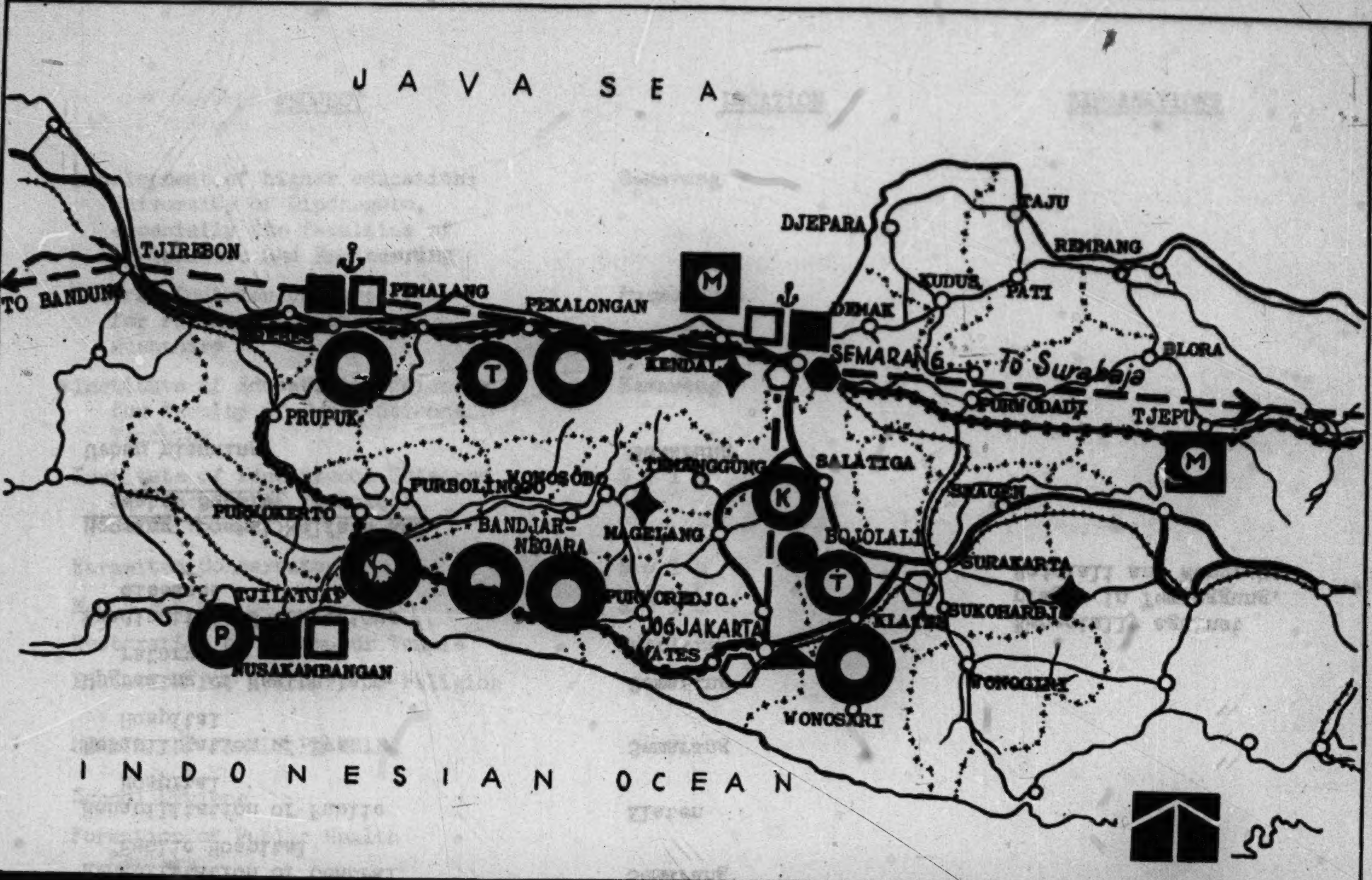
PROJECT	LOCATION	EXPLANATIONS
Village irrigation water pumps		
Flood control	Bengawan Solo, Seraju Kidul, Pekalongan	
Improvement of lakes	Rawa Pening	
Project for protection against natural disasters and relieve of victims	Mount Merapi	
INDUSTRY MINING AND ELECTRIC POWER		
Industry		
Paper mill	Blabak	Rehabilitation
Rehabilitation of textile factories		
Superphosphate factory	Tjilatjap	Finishing stage
Mining		
Petroleum and natural gas	Off-shore	
Bauxite	Southern part of Surakarta	Exploration
Electric Power		
Steam-power electric plant	Semarang	
Hydro-power electric plant	Garung	

PROJECT	LOCATION	EXPLANATIONS
Electric transmission and distribution network	Central Java	Rehabilitation
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Scattered over the whole region, on state and provincial roads
Weigh bridges		On state and provincial roads
Workshops for the rehabilitation and upgrading of roads	Semarang Solo	
Rehabilitation/upgrading of railroads, signal systems and telecommunications	Tjirebon-Semarang-Surabaja Prupuk-Jogjakarta-Solo	
Air Communications		
Upgrading/extension of runway	Jogjakarta	
Electrification of airfield	Jogjakarta	
Sea Communications		
Rehabilitation/addition of quays, warehouses,	Semarang, Tegal	

PROJECT	LOCATION	EXPLANATIONS
water supply, electricity and loading and unloading equipment		
Salvage of wrecks	Tjilatjap	
Backlog dredging	Semarang	
Rehabilitation/replacement/ upgrading of sea telecommunications	Semarang	
Postal and Telecommunications		
Express postal service	Semarang-Ambarawa-Salatiga-Magelang	
Mobile postal service	Semarang-Magelang Semarang-Solo	Including circuit postal service and railroad postal service.
Village Post-office		Spread throughout the region.
Mobile Post-office		Operate to the inland.
Automation of local telephone	Semarang	
Micro-wave system	Djakarta-Bandung Tjirebon-Semarang Surabaja	
EDUCATION AND MANPOWER		
Improvement of technical and vocational schools		

PROJECT	LOCATION	EXPLANATIONS
Development of higher education: University of Diponegoro, especially the faculties of Agriculture and Engineering	Semarang	
General Sudirman University for Faculty of Animal Husbandry	Purwokerto	
Institute of Educational Sciences for Faculty of Exact Science Teaching	Semarang	
Institute of Educational Sciences for Faculty of Technical Science Teaching	Solo	
Karawitan Conservatory	Solo	
Museum	Solo	
Restoration of Borobudur Temple	Magelang	
Education for teachers of religion		
HEALTH AND FAMILY PLANNING		
School Hygiene		
Formation of Public Health Centers		
Rehabilitation and upgrading of Clinics and Mother and Child Welfare Clinics		

PROJECT	LOCATION	EXPLANATIONS
Rehabilitation of Central Public Hospital	Semarang	
Rehabilitation of Public Hospital	Klaten	
Rehabilitation of Eye Hospital	Semarang	
Upgrading of Health laboratory	Semarang	
Eradication of contagious diseases		Especially against plague in Temanggung, Bojolali and Wonosobo
Housing, Social Welfare and Water Supply		
Urban planning	Semarang	


JAVA SEA
TJIREBON
TO BANDUNG
BREBES
PEMALANG
PEKALONGAN
M
T
KENDAL
DEMAK
SEMARANG
To Surabaja
DJEPARA
KUDUS
PATI
TAJU
REMBANG
BLORA
PURWODADI
TJEPU
M
PRUPUK
PURBOLINGGO
WONOSOBO
TEMANGGUNG
SALATIGA
K
SRAGEN
PURWOKERTO
BANDJAR-
NEGARA
MAGELANG
BOJOLALI
SURAKARTA
T
TJILATJAP
PURWOREDJO
JOGJAKARTA
KLATEN
SUKOHARDJO
P
NUSAKAMBANGAN
WATES
WONOGIRI
WONOSARI
INDONESIAN OCEAN

TARGET REHAB. & UPGRAD.
OF ROADS '69/70 - 73/74 = 1235 KM.

CENTRAL JAVA

12. PROVINCE: JOGJAKARTA SPECIAL TERRITORY

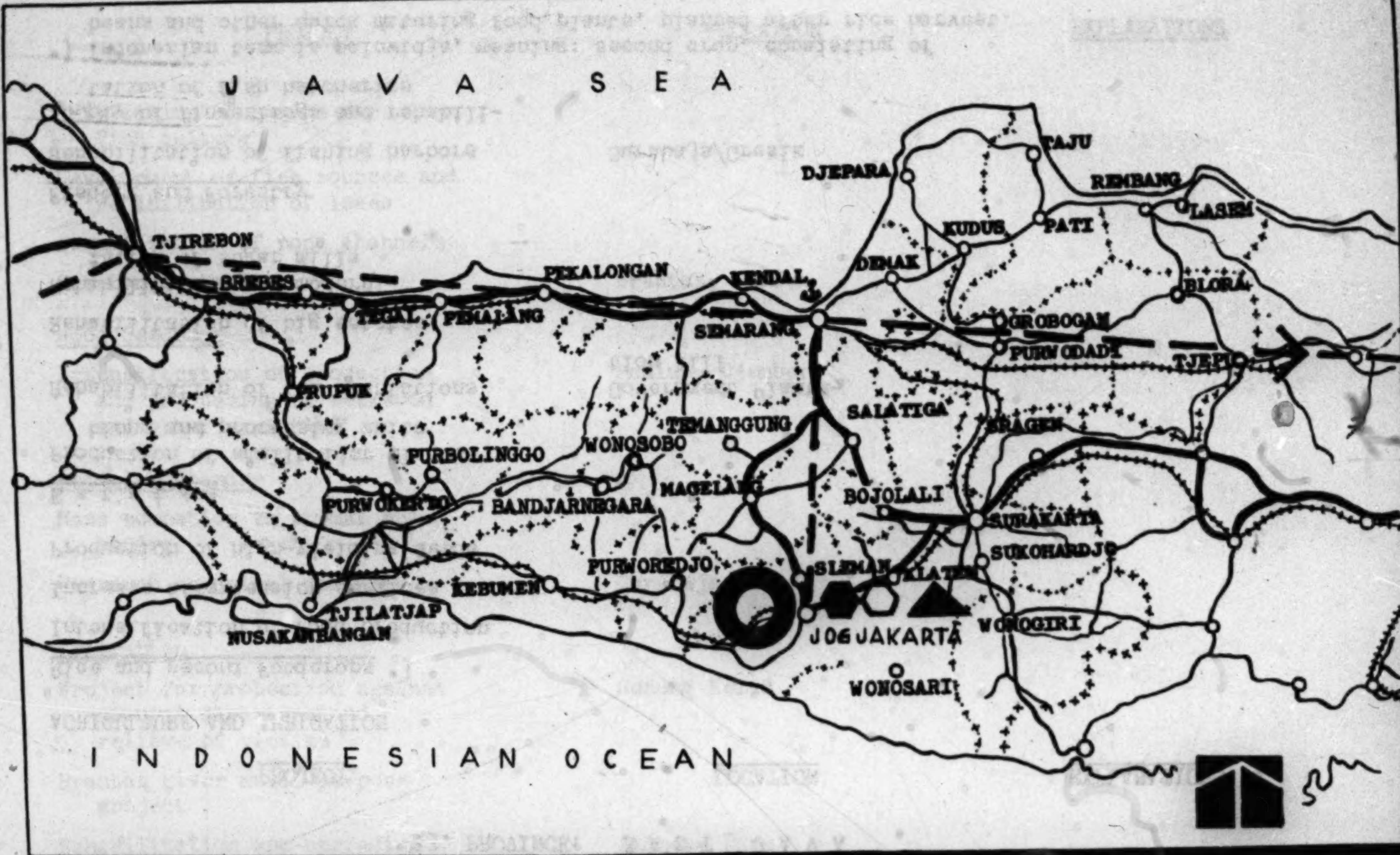
PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increase of extension services		
Fishery and Forestry		
Flood control		Reforestation
Development of multipurpose forests		
Animal Husbandry		
Medicine and medical Instrument industry	Jogja	
Irrigation		
Rehabilitation and upgrading of irrigation system		
Flood control		

*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
INDUSTRY MINING AND ELECTRIC POWER		
Industry		
Upgrading of light and home industries and processing of agriculture products		
Electric Power		
Increase of installed power supply		
COMMUNICATIONS		
Land Communications		
Rehabilitation and upgrading of roads and bridges		Spread over state/provincial/regency roads
Workshop for road rehabilitation and upgrading	Jogjakarta.	
Public Transport		
Urban Transport	Jogjakarta	
Rehabilitation and upgrading of railroads and bridges	Prupuk-Jogjakarta	

PROJECT	LOCATION	EXPLANATIONS
Rehabilitation and upgrading of railroad signals/telecommunications and electronic system		
Air Communications		
Rehabilitation/upgrading of runway and electrification or airport	Jogjakarta	
Postal and Telecommunications		
Extension of express postal service		Between Jogjakarta-Solo-Semarang-Djakarta, etc.
Mobile postal service	Jogjakarta	Including circuit postal service and railroad postal service
Village post office		Distributed throughout the region
Mobile post office		Operating to inland
Long distance communications through radio transmission		Between Jogjakarta-Semarang-Djakarta
EDUCATION AND MANPOWER		
Improvement of vocational education		

PROJECT	LOCATION	EXPLANATIONS
Development of higher education: University of Gadjah Mada, especially for Faculties of Agriculture, Agricultural Technology, Forestry, Animal Husbandry	Jogjakarta	
Karawitan Conservatory	Jogjakarta	
Restoration of Prambanan Temple	Prambanan	
Industrial Training	Jogjakarta	
Training Center for Family Planning	Jogjakarta	
Institute for Islamic Studies	Jogjakarta	
Education for Teachers of Religion	Jogjakarta	
HEALTH AND FAMILY PLANNING		
School Hygiene		
Establishment of Public Health Centers		
Rehabilitation and upgrading of Clinics and Mother and Child Welfare Clinics		
Rehabilitation of Hospital for Tuberculosis	Pakem	
Eradication of contagious diseases		Especially plague in Sleman


J A V A S E A
TJIREBON
BREBES
TEGAL
PEMALANG
PEKALONGAN
KENDAL
SEMARANG
DJEPARA
TAJU
REMBANG
LASEM
KUDUS
PATI
DEMAK
BLORA
GROBOGAN
PURWODADI
TJEPU
PRUPUK
SALATIGA
TEMANGGUNG
SRAGEN
PURBOLINGGO
WONOSOBO
MAGELANG
BOJOLALI
PURWOKERTO
BANDJARNEGARA
SURAKARTA
SUKOHARDJO
PURWOREDJO
SLEMAN
KLATEN
KEBUMEN
TJILATJAP
NUSAKAMBANGAN
JOGJAKARTA
WONOGIRI
WONOSARI
I N D O N E S I A N O C E A N

TARGET REHAB. & UPGRAD.
OF ROADS '69/70-73/74 = 150 KM. **JOGJAKARTA** SPECIAL AREA

13. PROVINCE: EAST JAVA

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increase of extension services		
Production of high-yielding seeds		
Estates		
Production of smallholder plantations and processing units		
Rehabilitation of tea plantations	Government Plantation XIII	
Rehabilitation of big estates		
Rehabilitation and modernization of sugar mills		
Fishery and Forestry		
Rehabilitation of fishing harbors	Surabaja/Gresik	
Supply of fingerlings and rehabilitation of fish hatcheries		

*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Utilization of swamps for fish culture		
Development of fish sources and rehabilitation of lakes		
Normalization of pond channels		
Erosion control	Brantas, Madiun	
Wood Seedbeds		
Intensification of production and processing of teakwood and other varieties	Madiun, Djember	
Animal Husbandry		
Mass education in animal husbandry		
Research on animal diseases	Surabaja	
Irrigation		
Project for protection against natural disasters and relieve of victims	Gunung Kelud	
Brantas River multi-purpose project		
Rehabilitation and upgrading of Irrigation project	Sampean Baru	

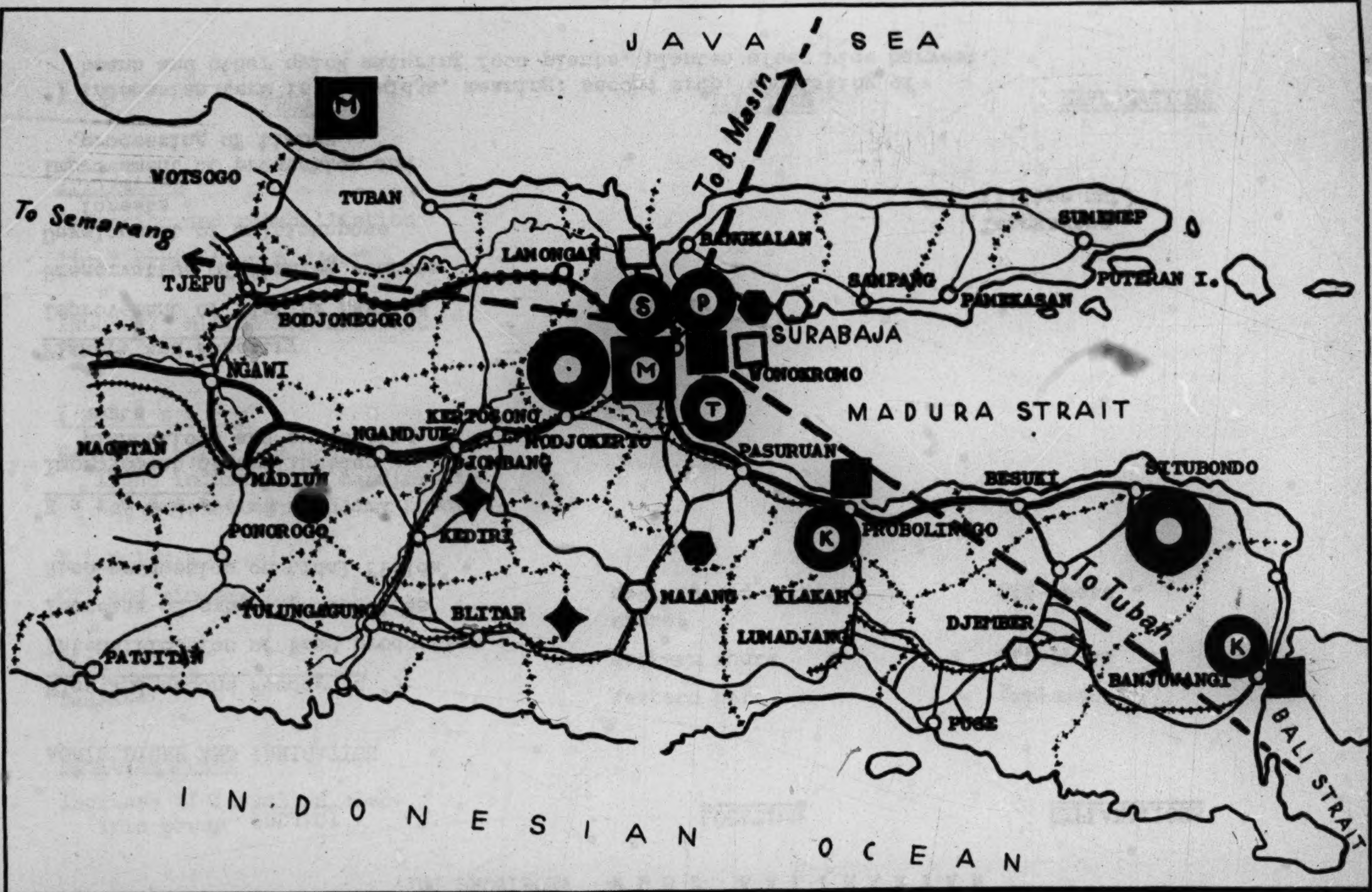
PROJECT	LOCATION	EXPLANATIONS
Village irrigation water pumps		
Flood control	Brantas, Madiun	
INDUSTRY, MINING AND ELECTRIC POWER		
Paper Project	Banjuwangi, Letjes	
Broadening of Gresik cement plant	Gresik	
Petro-chemical project	Gresik	
Modernization of Waru soda plant	Waru	
Mining		
Oil and natural gas	Off-shore	
Bauxite	Southern part, Madiun	Exploration
Electric Power		
Hydro-electric power plant	Ngebel	Finishing
Hydro-electric power plants Karangkates I, II	Karangkates	Preliminary stage
Hydro-electric power plant Seloredjo	Seloredjo	

PROJECT	LOCATION	EXPLANATIONS
Distribution and transmission network in East Java		Rehabilitation
COMMUNICATIONS		
Land Communications		
Rehabilitation and upgrading of roads and bridges		Distributed throughout the region on certain state/provincial/regency roads
Public transportation		Inter-city in East Java
Urban transportation	Surabaja	
Rehabilitation/upgrading of railroad and buildings	Surabaja, Pasarturi	
Workshop for rehabilitation and upgrading of roads	Madiun, Pasuruan Malang	
Rehabilitation/upgrading railroad telecommunications signals and electronics		Spread over the Eastern Exploitation region
Sea Communications		
Rehabilitation/upgrading of sea communications	Kamal, Udjung	
Rehabilitation/upgrading of quays	Ketapang	

PROJECT	LOCATION	EXPLANATIONS
Harbor and its facilities: Dredging and rehabilitation/ upgrading of quays, warehouses, electricity, water supply, and equipment for loading and unloading	Surabaja Probolinggo Banjuwangi	
Salvage of wrekcs	Surabaja	
Rehabilitation of dock repair facilities	Surabaja	
Navigational telecommunications and buoys	Surabaja	
Postal and Telecommunications		
Expansion of express postal services	Surabaja-Jogja Surabaja-Semarang Surabaja-Banjuwangi	
Mobile postal service	Surabaja-Madiun Surabaja-Malang	
Village and mobile post offices	Surabaja-Modjokerto Pasuruan-Djember	
Building of local telephone system	Surabaja and Malang	
Development of long distance communications (Micro-wave)	Between Djakarta-Bandung-Tjirebon-Semarang Surabaja-Bali	
High frequency communications	Kupang-Denpasar-Surabaja	

PROJECT	LOCATION	EXPLANATIONS
Communication through Tropo-scatter	Surabaja-Bandjarmasin	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education: Erlangga University Faculty of Pharmacy Faculty of Medicine	Surabaja	
Surabaja Institute of Technology	Surabaja	
Faculty of Marine Technology		
Faculty of Chemistry		
Brawidjaja University Faculty of Agriculture	Malang	
University of Djember Faculty of Agriculture	Djember	
Education of accountant assistant		
Institute of Islamic Studies		
Restoration of Trowulan Temple		

PROJECT	LOCATION	EXPLANATIONS
HEALTH AND FAMILY PLANNING		
School Hygiene		
Establishment of Community Health Centers		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Rehabilitation of Central Public Hospital	Surabaja	
Upgrading and development of Health laboratory	Surabaja	
Eradication of contagious diseases		
Provision of drugs and medical equipment		
Increased production of medicines and medical instruments		
Housing, Social Welfare, and Water Supply		
City Planning	Surabaja	
Regional planning	Surabaja	


JAVA SEA
To B. Masin
To Semarang
WOTSOGO
TUBAN
TJEPU
BODJONEGORO
LAMONGAN
BANGKALAN
SAMPANG
PAMEKASAN
SUMENEP
PUTERAN I.
S
P
M
T
K
SURABAJA
WONOKROMO
MADURA STRAIT
NGAWI
MAGETAN
MADIUN
PONOROGO
NGANDJUK
KERTOSONO
MODJOKERTO
DJOMBANG
KEDIRI
TULUNGAGUNG
BLITAR
PATJITAN
MALANG
PASURUAN
PROBOLINGGO
KLAKAH
LUMADJANG
BESUKI
SITUBONDO
DJEMBER
PUGE
To Tuban
BANJUWANGI
BALI STRAIT
INDONESIAN OCEAN

TARGET REHAB. & UPGRAD.
OF ROADS '69/70-73/74 = 1510 KM.

EAST JAVA

14. PROVINCE: WEST KALIMANTAN

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increase of extension services		
Rice production on tidal fields		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Improvement of fishing harbors	Pontianak	
Preservation of fishing sources		
Development of multipurpose forests		Tengkawang (Illipe nut)
Improvement of production and processing of timber		

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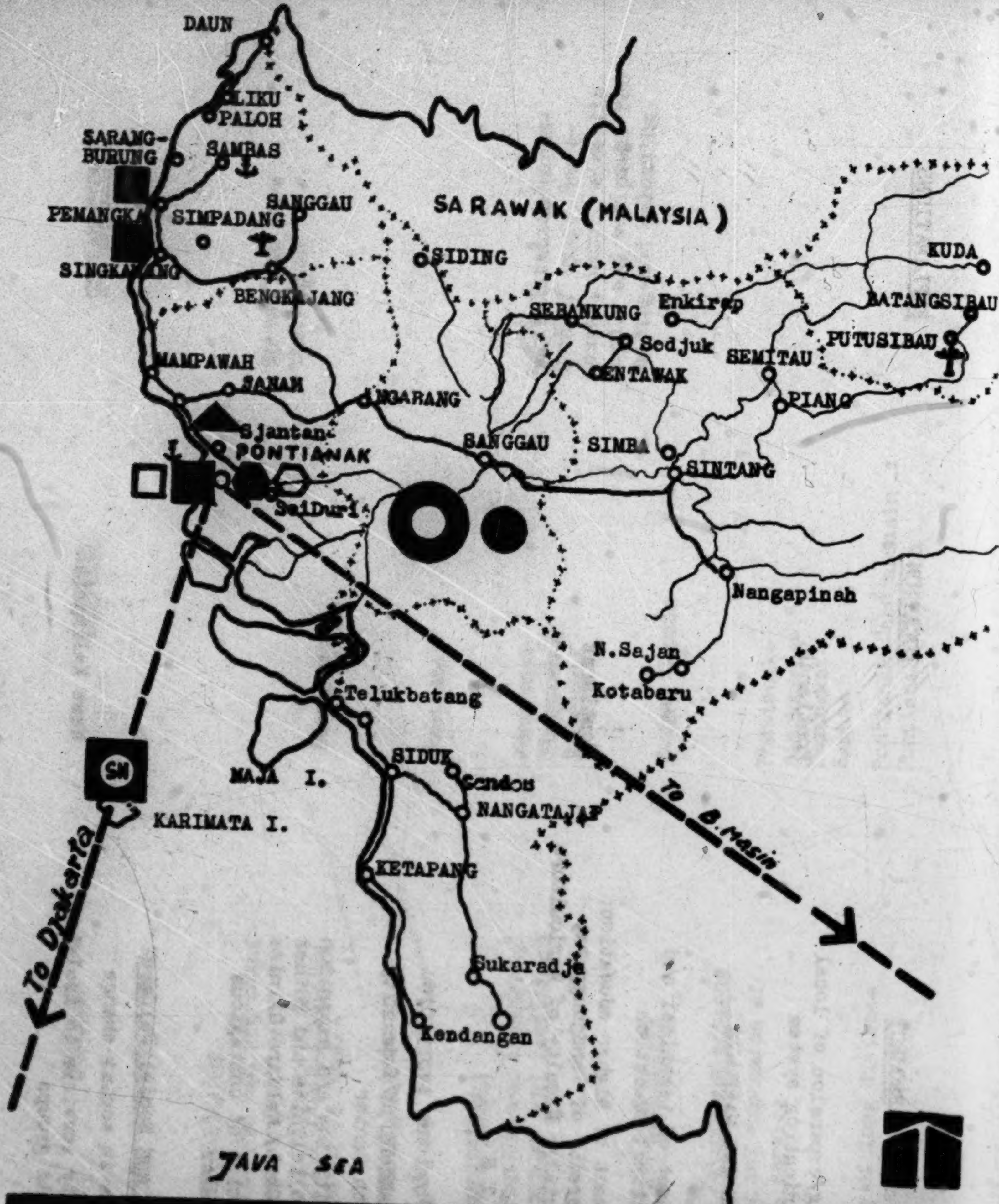
*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Irrigation		
Expansion and rehabilitation		
Tidal irrigation project		
INDUSTRY MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and upgrading of light industry and handicrafts and processing of dairy products		
Mining		
Oil and mineral gas	Western and southern shores	Off-shore
Tin	Western shore	Off-shore
Bauxite	Western part	Exploration
Electric Power		
Increase of installed electric power		

PROJECT	LOCATION	EXPLANATIONS
COMMUNICATIONS		
Land Communications		
Rehabilitation and upgrading of roads and bridges		Spread out over the region
Workshop for rehabilitation/ upgrading of roads	Pontianak	
Air Communications		
Airport and its facilities	Pontianak	
Sea Communications		
Rehabilitation and expansion of harbors and facilities	Pontianak Singkawang Pemangkat	Rehabilitation/expansion of quays, warehouses, water, electric supply and equipment for loading and unloading
Terminal and facilities	Sungai Kapuas	
Post and Telecommunications		
Upgrading and expansion of postal service	Pontianak-Singkawang-Pemangkat-Sambas	
Upgrading of long distance telecommunications	Pontianak-Bandjarmasin Pontianak-Djakarta	

PROJECT	LOCATION	EXPLANATIONS
Upgrading/expansion of local communication system	Pontianak	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education: University of Tandjungpura, especially Faculty of Agriculture	Pontianak	
HEALTH		
School Hygiene		
Establishment of Community Health Center		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		
Housing and Social Welfare		
Guidance in social change		
Community services to isolated ethnic groups	West Kalimantan	


DAUN
LIKU
PALOH
SARANG-BURUNG
SAMBAS
PEMANGKA
SIMPADANG
SANGGAU
SINGKAWANG
BENGKAJANG
SARAWAK (MALAYSIA)
SIDING
SEBANKUNG
Enkirep
Sedjuk
CENTAWAK
SEMITAU
KUDA
BATANGSIBAU
PUTUSIBAU
PIANG
MAMPAWAH
SANAM
NGARANG
Sjantan
PONTIANAK
SANGGAU
SIMBA
SINTANG
SeiDuri
Nangapinah
N.Sajan
Kotabaru
Telukbatang
SIDUK
Sendos
NANGATAJAP
MAJA I.
SN
KARIMATA I.
KETAPANG
Sukaradja
Kendangan
To Djakarta
To B.Masin
JAVA SEA

**TARGET REHAB.& UPGRAD.
OF ROADS:'69/70 -73/74 =
280 KM.**

WEST KALIMANTAN

15. PROVINCE: CENTRAL KALIMANTAN

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Improvement of extension services		
Rice production of tidal fields		
Estates		
Improvement of smallholder estates and processing units		
Fishery and Forestry		
Preservation of fish resources and tidal fish ponds		
Improvement of multipurpose forests		
Improvement of production and processing of timber		

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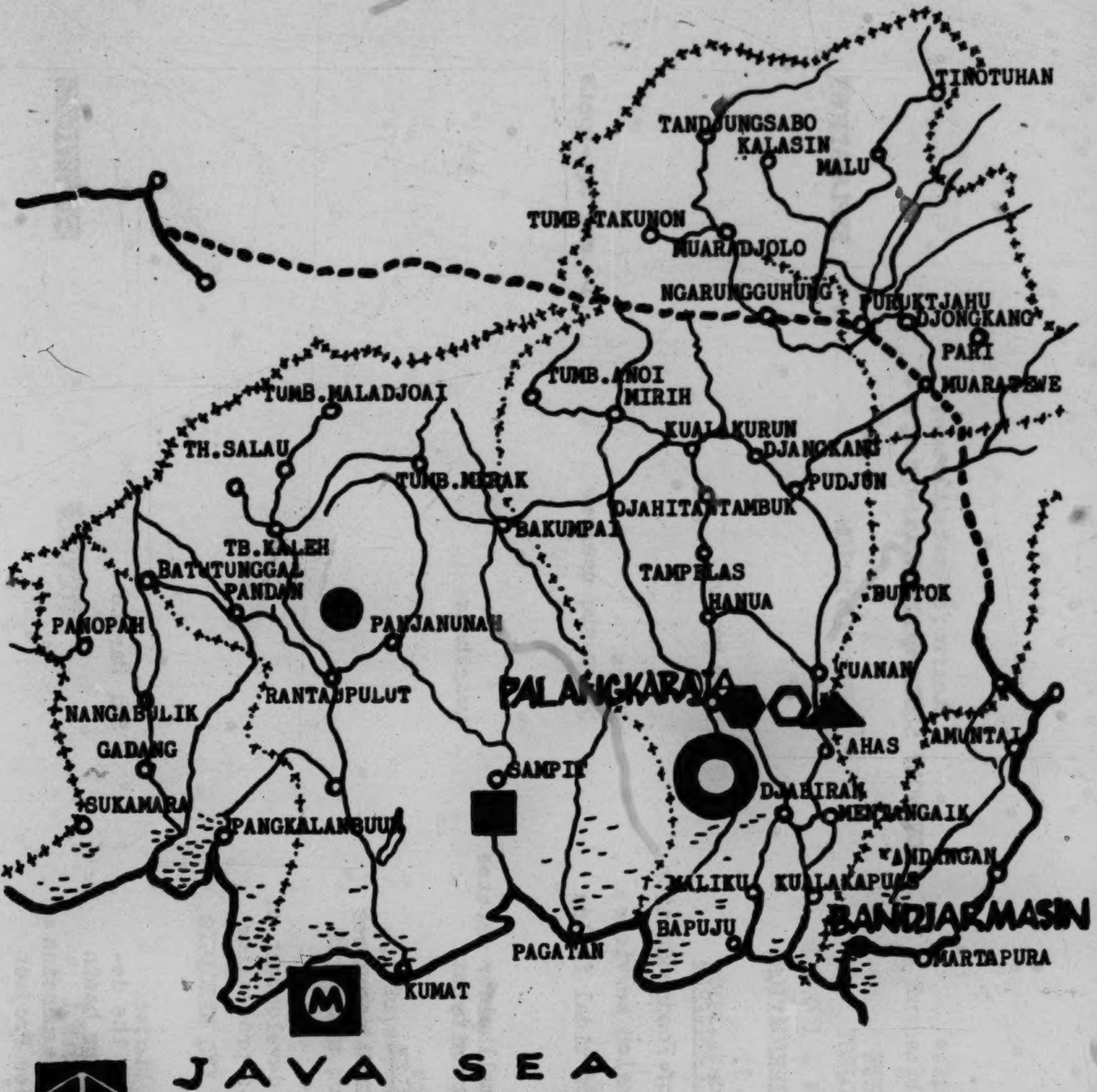
*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Improvement of production and processing of non-timber forest products		
Irrigation		
Polder Project of Mantaren		
Tidal irrigation project		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and upgrading of light industries, handicrafts and processing of agricultural products		
Electric Power		
Expansion of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges/		Certain state/provincial/ regency roads

PROJECT	LOCATION	EXPLANATIONS
Air Communications		
Improvement of fire brigade facilities, upgrading of airstrip and electrification of airport	Palangkaraja	
Sea Communications		
Harbor and facilities (including dredging)	Sampit	
Facilities for sea telecommunication	Sampit	
Construction of river terminals		
Post and Telecommunications		
Upgrading/improvement of post and telecommunication system		
Upgrading/improvement of long distance telecommunication	Palangkaraja-Djakarta	
Upgrading/increasing the number of local telephones	Palangkaraja	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		

PROJECT	LOCATION	EXPLANATIONS
Development of higher education:		
University of Palangka Raya, Faculties of Agriculture and Forestry	Kuala Kapuas	
H E A L T H		
School Hygiene		
Establishment of Community Health Center		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		


TINOTUHAN
TANDJUNGSABO
KALASIN
MALU
TUMB.TAKUNON
MUARADJOLO
NGARUNGGUHUNG
PURUKTJAHU
DJONGKANG
PARI
MUARATEWE
TUMB.ANOI
MIRIH
TUMB.MALADJOAI
KUALAKURUN
DJANGKANG
PUDJUN
TH.SALAU
TUMB.MIRAK
BAKUMPAI
DJAHITANTAMBUK
TB.KALEH
BATUTUNGGAL
PANDAN
TAMPELAS
HANUA
BUNTOK
PANOPAH
PANJANUNAH
TUANAN
RANTAUPULUT
PALANGKARAJA
NANGABULIK
GADANG
AHAS
AMUNTAI
SAMPIT
DJABIRAN
SUKAMARA
PANGKALANBUUN
MENTANGAIK
KANDANGAN
MALIKU
KUALAKAPUAS
BANDJARMASIN
BAPUJU
PAGATAN
MARTAPURA
KUMAT
M
JAVA SEA

TARGET REHAB. & UPGRAD.
OF ROADS '69/70-73/74 =
45 KM.

CENTRAL KALIMANTAN

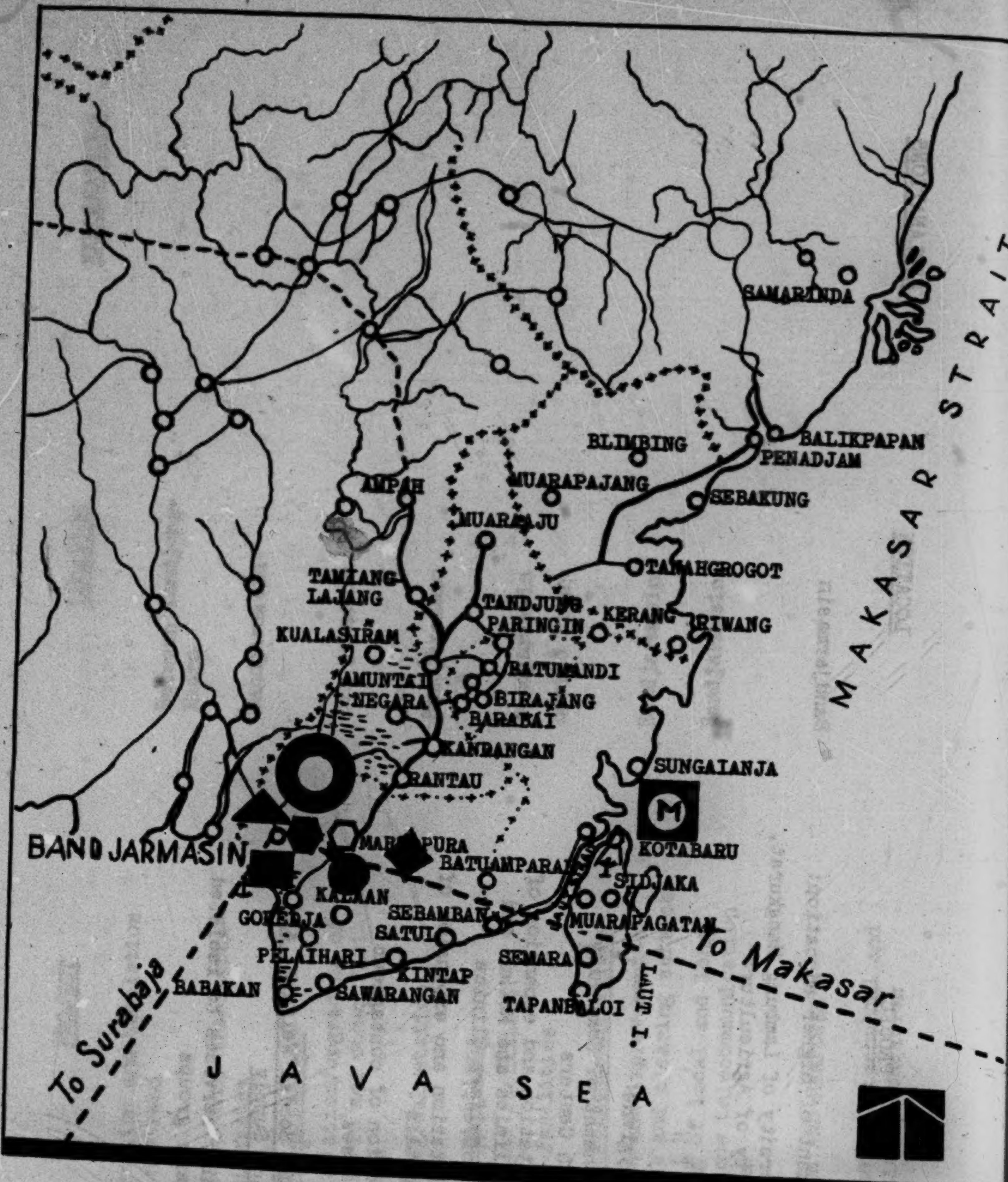
16. PROVINCE: SOUTH KALIMANTAN

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops		
Intensification of Foodproduction		
Increase of extension services		
Rice production on tidal fields		
Estates		
Improvement of smallholder estates and processing units		
Fishery and Forestry		
Preservation of fish resources		
Tidal fish ponds		
Construction and development of forest products processing industry		
Irrigation		
Survey and planning the development of river basin	Sei Barito	
Rehabilitation and expansion of Alabio Polder Project		

PROJECT	LOCATION	EXPLANATIONS
Tidal irrigation project		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and upgrading of light industry, handicrafts and processing of forest products		
Survey for Martapura paper plant	Martapura	
Mining		
Oil and natural gas	South and eastern parts	On- and off-shore
Electric Power		
Hydro-electric power plant Riam Kanan I, II	Riam Kanan	
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges	Spread over certain state/ provincial/regency roads	

PROJECT	LOCATION	EXPLANATIONS
Construction and completion of new road	Between Tandjung-Kuaro	
Public and City transportation system	Bandjarmasin	
Air Communications		
Rehabilitation/upgrading of airstrip and other facilities	Bandjarmasin	
Meteorological station	Bandjarmasin	
Sea Communications		
Harbor and facilities	Bandjarmasin	
Terminal facilities	Barito River	
Post and Telecommunications		
Expansion and improvement of postal and clearing services	Bandjarmasin	
Upgrading of local and long distance telecommunication system	Bandjarmasin	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		

PROJECT	LOCATION	EXPLANATIONS
Development of higher education:	Bandjarmasin	
University of Lambung Mangkurat, Faculty of Agriculture		
H E A L T H		
School Hygiene		
Establishment of Community Health Centers		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Rehabilitation and expansion of hospitals		
Eradication of contagious diseases		
Housing, Social Welfare, and Water Supply		
Community services to isolated ethnic groups		


SAMARINDA
BALIKPAPAN
PENADJAM
BLIMBING
MUARAPAJANG
SEBAKUNG
AMPAH
MUARAPAJU
TANAHGROGOT
TAMIANG-
LAJANG
TANDJUNG
PARINGIN
KERANG
RIWANG
KUALASIRAM
BATUMANDI
AMUNTAI
NEGARA
BIRAJANG
BARABAI
KANDANGAN
RANTAU
SUNGAIANJA
BANDJARMASIN
MARTAPURA
BATUAMPARAN
KOTABARU
SIDJAKA
KALAAN
GOBERJA
SEBAMBAN
MUARAPAGATAN
SATUI
PELAIHARI
SEMARA
KINTAP
BABAKAN
SAWARANGAN
TAPANBALOI
LAUT I.
To Surabaja
To Makasar
MAKASAR STRAIT
JAVA SEA
M

TARGET REHAB. & UPGRAD.
OF ROADS '69/70-73/74
325 KM.

SOUTH KALIMANTAN

17. PROVINCE: EAST KALIMANTAN

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increase of extension services		
Estates		
Rehabilitation of smallholder plantations and processing units		
Fishery and Forestry		
Upgrading of fishing harbors		
Preservation of fish resources		
Intensification of production and processing of timber		
Intensification of production and processing of non-timber forest products		
Forest Inventory		

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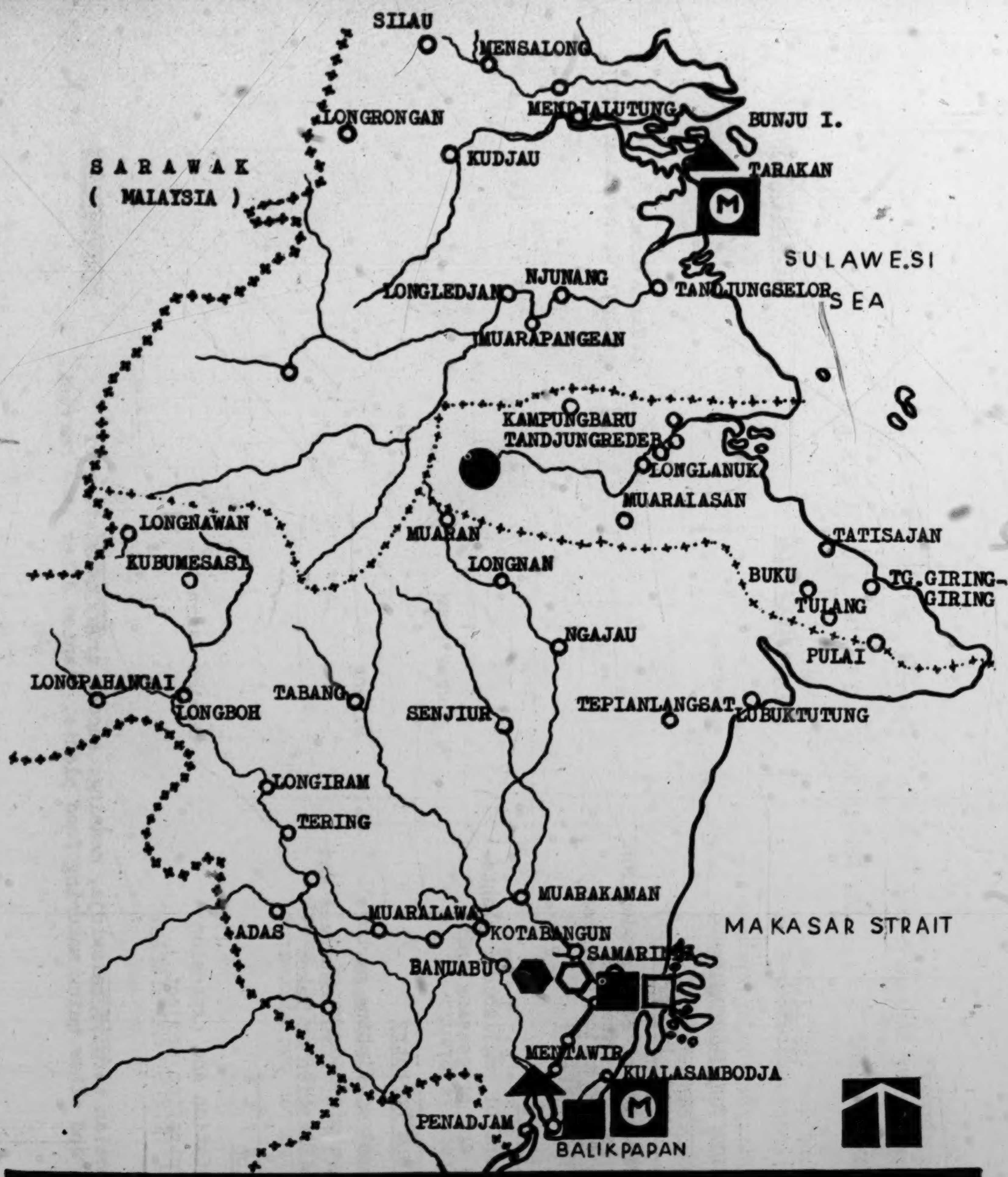
*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Irrigation		
Rehabilitation and expansion		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and upgrading of light industry, handicrafts and processing of agricultural products		
Mining		
Oil and natural gas	Off-shore	
Electric Power		
Expansion of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation and upgrading		Certain parts of state/ provincial/regency roads
Construction and finishing of new roads	Balikpapan Samarinda	

PROJECT	LOCATION	EXPLANATIONS
Air Communications		
Rehabilitation/upgrading of airports and facilities	Balikpapan Tarakan	
Rehabilitation/expansion of harbor: warehouses, water, electricity supply and for loading and unloading	Samarinda Balikpapan	
Salvage of wrecks	Balikpapan	
Rehabilitation/replacement/expansion of sea telecommunications	Balikpapan Samarinda	
Rehabilitation/replacement/expansion of buoys and coastal lights	Balikpapan	
POSTAL AND TELECOMMUNICATIONS		
Expansion of post and telecommunication facilities		
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Upgrading of higher education:		
University of Mulawarman, Faculty of Agriculture and Forestry	Samarinda	

PROJECT	LOCATION	EXPLANATIONS
HEALTH		
School Hygiene		
Establishment of Public Health Center		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		
Housing and Social Welfare		
Community services to isolated ethnic groups	East Kalimantan	


SIIAU
MENSALONG
MENDJALUTUNG
BUNJU I.
LONGRONGAN
KUDJAU
TARAKAN
SARAWAK
(MALAYSIA)
SULAWESI
SEA
LONGLEDJAN
NJUNANG
TANDJUNGSELOR
MUARAPANGEAN
KAMPUNGBARU
TANDJUNGREDEB
LONGLANUK
MUARALASAN
LONGNAWAN
MUARAN
KUBUMESASI
LONGNAN
TATISAJAN
BUKU
TG.GIRING-
GIRING
TULANG
NGAJAU
PULAI
LONGPAHANGAI
LONGBOH
TABANG
SENJIUR
TEPIANLANGSAT
LUBUKTUTUNG
LONGIRAM
TERING
MUARAKAMAN
MAKASAR STRAIT
ADAS
MUARALAWA
KOTABANGUN
SAMARINDA
BANUABU
MENTAWIR
KUALASAMBODJA
PENADJAM
BALIKPAPAN

TARGET REHAB.& UPGRAD.
OF ROADS '69/70 -73/74 -
130 KM.

EAST KALIMANTAN

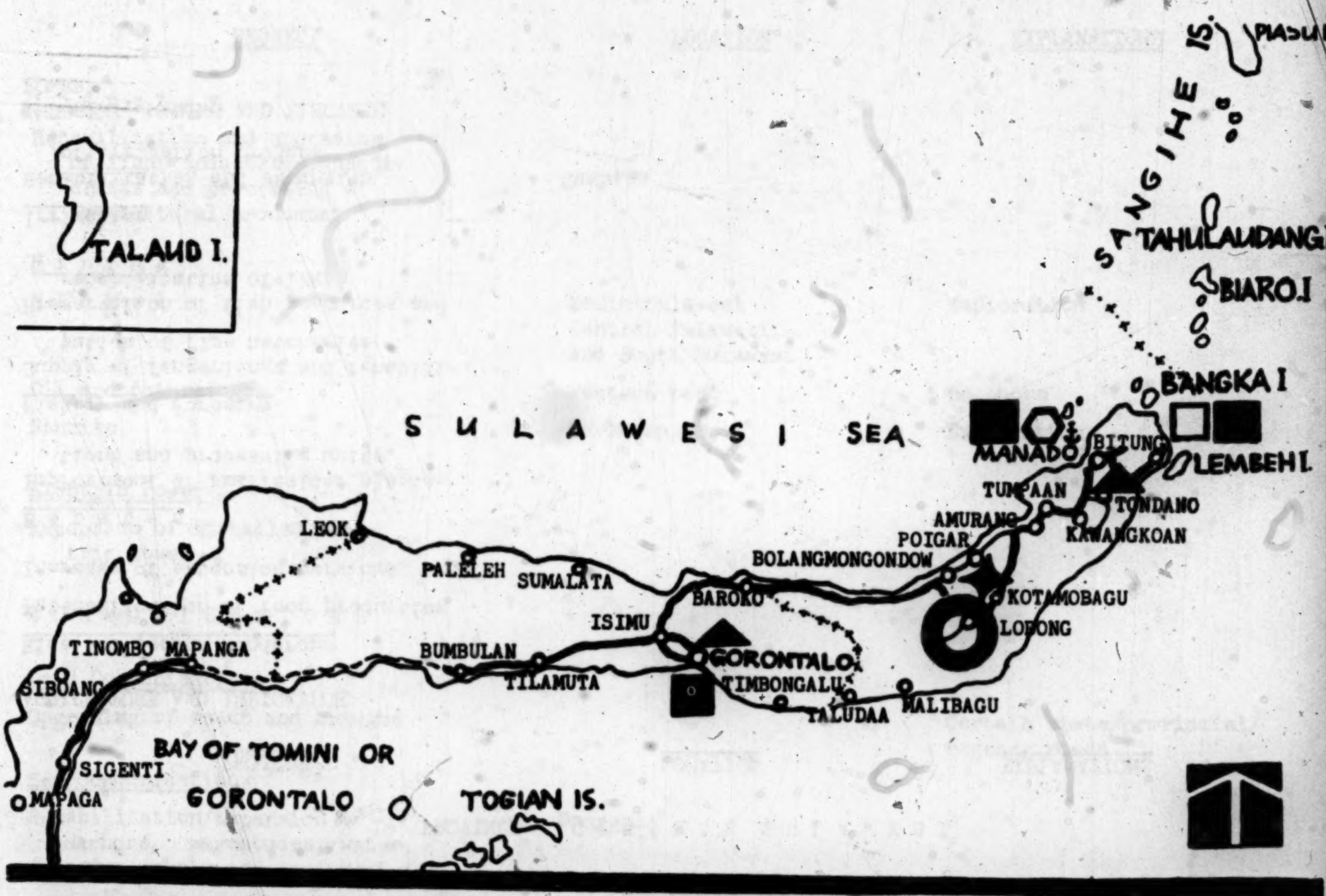
18. PROVINCE: NORTH SULAWESI

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increase of extension services		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Improvement of fishing harbors	Bitung	
Preservation of fish resources and rehabilitation of lakes		
Irrigation		
Rehabilitation and expansion of irrigation project	Dumoga Kanan	

*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and upgrading of light industries, handicrafts and processing of agricultural products		
Electric Power		
Hydro-electric plant	Tonsea Lama	
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Certain state/provincial/ regency roads
Air Communications		
Rehabilitation/upgrading and electrification of airport	Mapanget	
Rehabilitation/upgrading of airport and facilities	Gorontalo	
Sea Communications		
Modernization of private small boats (proas)	Bitung	

PROJECT	LOCATION	EXPLANATIONS
Rehabilitation/upgrading of harbors	Bitung	
Post and Telecommunications		
Expansion of postal clearing service	Manado/Tondano	
Telecommunications project	Manado	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Upgrading of higher education:		
Sam Ratulangi University, Faculty of Fish Science, Faculty of Veterinary Science, Institute of Educational Sciences and Teaching, especially the Faculty of Technical Science Teaching	Manado	
HEALTH		
School Hygiene		
Establishment of Community Health Centers		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		


TALAUD I.
SANGIHE IS.
PIASU
TAHULAUDANG
BIARO.I
BANGKA I
LEMBEH I.
SULAWESI SEA
MANADO
BITUNG
TUMPAAN
TONDANO
AMURANG
KAWANGKOAN
POIGAR
BOLANGMONGONDOW
KOTAMOBAGU
LOLONG
BAROKO
ISIMU
GORONTALO
TIMBONGALU
TALUDAA
MALIBAGU
LEOK
PALELEH
SUMALATA
BUMBULAN
TILAMUTA
TINOMBO
MAPANGA
SIBOANG
SIGENTI
OMAPAGA
BAY OF TOMINI OR GORONTALO
TOGIAN IS.

TARGET REHAB. & UPGRAD.
OF ROADS '69/70 - 73/74 = 445 KM.

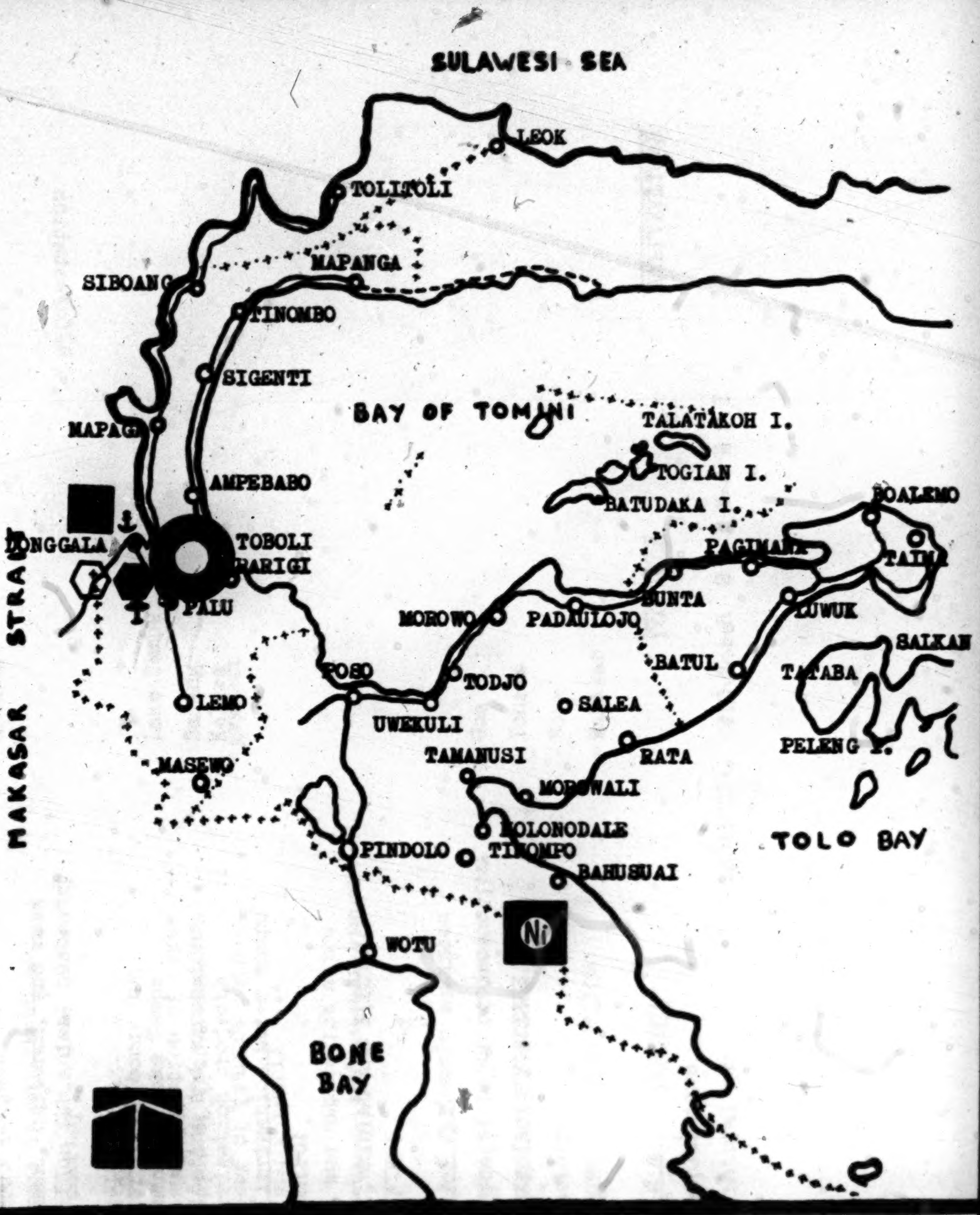
NORTH SULAWESI

19. PROVINCE: CENTRAL SULAWESI

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops		
Intensification of Food production		
Increase of extension services		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Supply of fingerlings and rehabilitation of fish hatcheries		
Preservation of fish resources and rehabilitation of lakes		
Irrigation		
Rehabilitation and expansion of irrigation project	Gumbasa	
INDUSTRY, MINING AND ELECTRIC POWER		

PROJECT	LOCATION	EXPLANATIONS
Industry		
Rehabilitation and upgrading of light industries, handicrafts and processing of agricultural products		
Mining		
Nickel	South Sulawesi Central Sulawesi and South Sulawesi	Exploration
Oil and natural gas	Western part	On-shore
Bauxite	Northern part	Exploration
Electric Power		
Expansion of installed electric power		
COMMUNICATIONS		
Land Communications		
Upgrading of roads and bridges		Certain state/provincial/ regency roads
Sea Communications		
Rehabilitation/expansion of harbors, warehouses, water, power supply and equipment for	Donggala	

PROJECT	LOCATION	EXPLANATIONS
loading and unloading		
Post and Telecommunications		
Expansion of postal and telecommunication facilities		
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education: Institute for Teaching Sciences and Education	Palu	Branch of Hasanuddin University
H E A L T H		
School Hygiene		
Establishment of Community Health Centers		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases.		
Housing and Social Welfare		
Guidance for Social Change		
Community services to isolated ethnic groups		


SULAWESI SEA
LEOK
TOLITOLI
MAPANGA
SIBOANG
TINOMBO
SIGENTI
BAY OF TOMINI
TALATAKOH I.
TOGIAN I.
BATUDAKA I.
MAPAGA
AMPEBABO
BOALEMO
DONGGALA
TOBOLI
PARIGI
PAGIMANA
TAIMA
PALU
BUNTA
MOROWO
PADAULOJO
LUWUK
SALKAN
MAKASAR STRAIT
BATUL
POSO
TODJO
TATABA
LEMO
SALEA
UWEKULI
TAMANUSI
RATA
PELENG I.
MASEWO
MOROWALI
KOLONODALE
TOLO BAY
PINDOLO
TINOMPO
BAHUSUAI
Ni
WOTU
BONE BAY

CENTRAL SULAWES

**TARGET REHAB.& UPGRAD.
OF ROADS '69/70 -73/74 =
225 KM.**

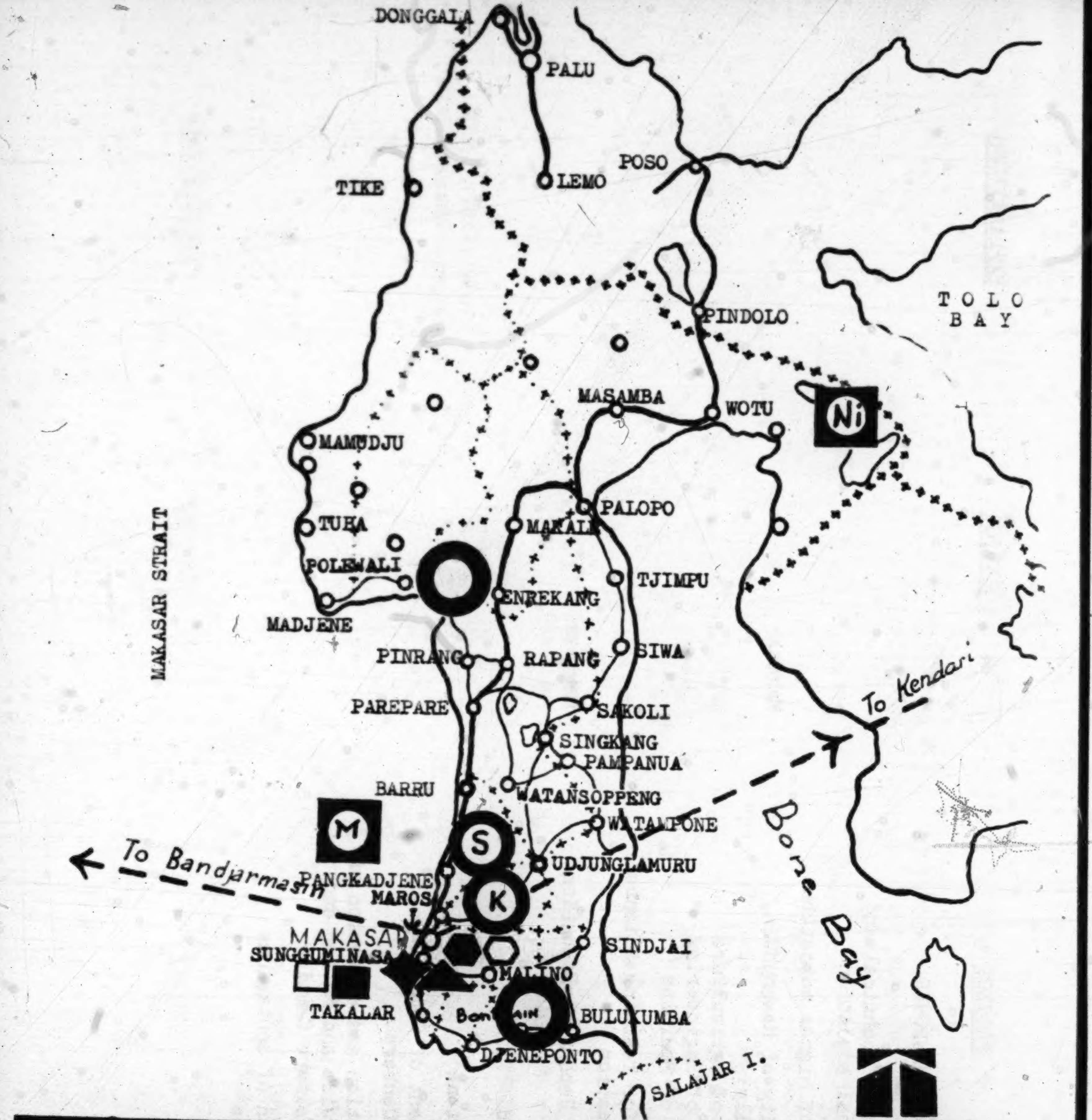
20. PROVINCE: SOUTH SULAWESI

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops		
Intensification of Food production		
Increase of extension services		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Improvement of fishing harbors	Makasar	
Preservation of fish resources and rehabilitation of lakes		
Normalization of ponds and channels		
Erosion control		Reforestation
Development of multipurpose forests		
Animal Husbandry		
Medicine and medical instrument		

PROJECT	LOCATION	EXPLANATIONS
industry project	Makasar	
Improvement, research, and mass education for animal husbandry		
Irrigation		
Improvement of Lake Tempe	Lake Tempe	
Rehabilitation and expansion of irrigation projects	Sadang Kelara	
Village irrigation water pumps		
Flood control		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Improvement of paper project	Goa	
Cement bag factory unit	Tonasa	
Sugar factory	Bone	
Dockyard	Makasar	
Mining		
Nickel exploration		
Oil and natural gas	Off-shore	

PROJECT	LOCATION	EXPLANATIONS
Electric Power		
Steam-electric plant	Makasar	
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Certain state/provincial/regency roads
Air Communications		
Rehabilitation/upgrading and expansion of airport and facilities	Makasar (Hasanuddin)	
Sea Communications		
Modernization of sailboats	Makasar	
Development of sea telecommunication facilities	Makasar	
Post and Telecommunications		
Expansion of postal and clearing service	Makasar	
Rehabilitation/upgrading and expansion of telecommunication network	Makasar	
Upgrading of local telephone system	Makasar	

PROJECT	LOCATION	EXPLANATIONS
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Upgrading of higher education:		
University of Hasanuddin, especially: Faculty of Agriculture Faculty of Engineering Faculty of Medicine	Makasar	
Institute for Teaching Sciences and Education		
Faculty of Technical Education	Makasar	
HEALTH		
School Hygiene		
Establishment of Community Health Centers		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		


DONGGALA
PALU
POSO
LEMO
TIKE
TOLO BAY
PINDOLO
MASAMBA
WOTU
Ni
MAMUDJU
TUHA
PALOPO
MAKALE
MAKASAR STRAIT
POLEWALI
TJIMPU
ENREKANG
MADJENE
PINRANG
RAPANG
SIWA
PAREPARE
SAKOLI
To Kendari
SINGKANG
PAMPANUA
BARRU
WATANSOPPENG
WATAMPONE
Bone Bay
M
S
To Bandjarmasin
PANGKADJENE
UDJUNGLAMURU
MAROS
K
MAKASAR
SUNGGUMINASA
SINDJAI
MALINO
TAKALAR
Bontain
BULUKUMBA
DJENEPONTO
SALAJAR I.

TARGET REHAB.& UPGRAD.
OF ROADS '69/70-73/74 =
695 KM.

SOUTH SULAWESI

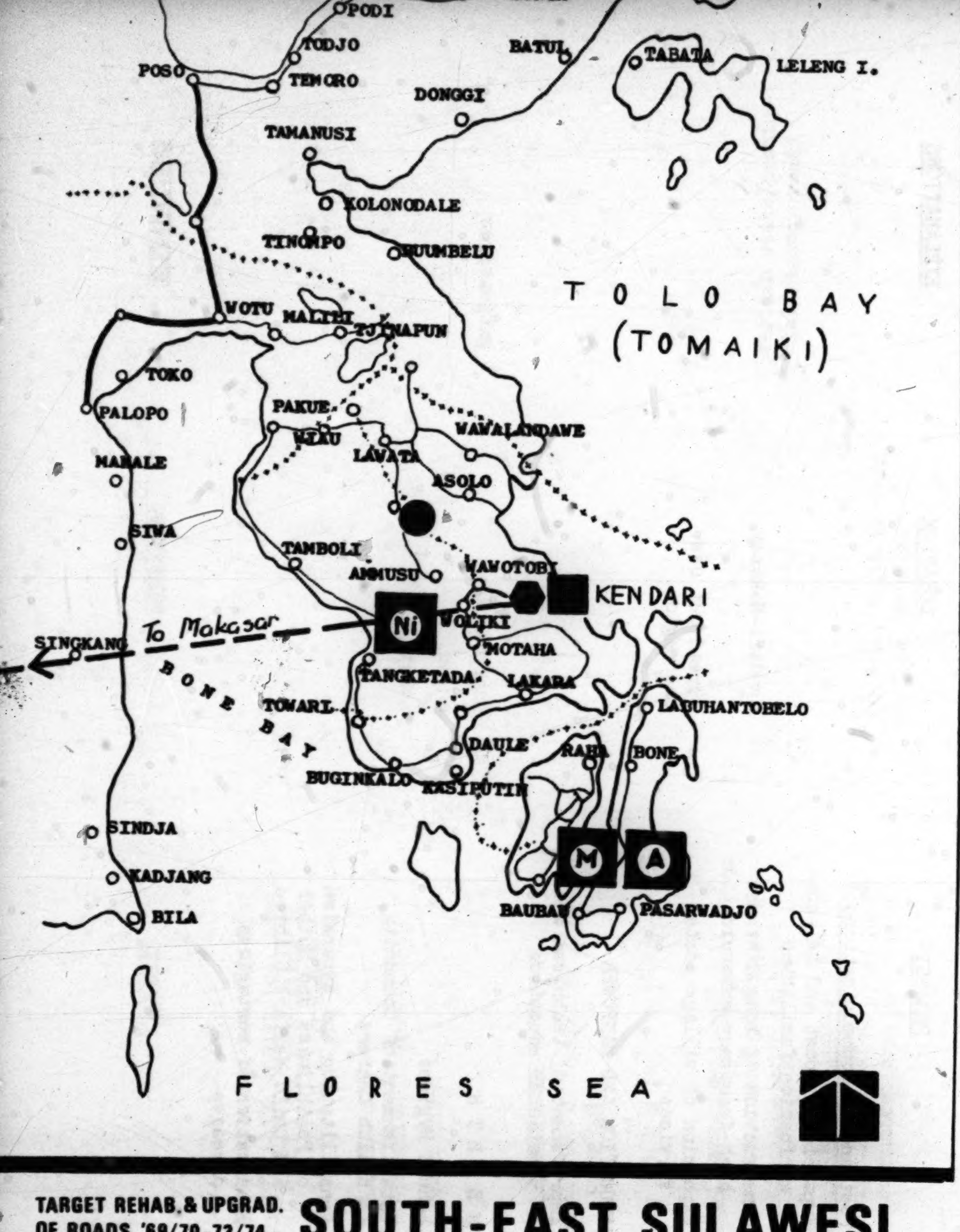
21. PROVINCE: SOUTH EAST SULAWESI

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increase of extension services		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Preservation of fish resources and rehabilitation of lakes		
Upgrading of production and processing of timber		
Irrigation		
Rehabilitation and expansion		
INDUSTRY, MINING AND ELECTRIC POWER		

*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Industry		
Rehabilitation and upgrading of light industries, handicrafts and processing of agricultural products		
Mining		
Exploration of nickel	Pomala	
Asphalt plant	Buton	
Bauxite	Southern part	Exploration
Electric Power		
Expansion of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Certain state/provincial/regency roads
Sea Communications		
Navigational safety, sea telecommunications, and buoys	Kendari, South Eastern part of Bonelipu	

PROJECT	LOCATION	EXPLANATIONS
Post and Telecommunications		
Expansion of post and telecommunication facilities		
Construction of long distance high frequency communication	Kendari-Makasar	
Expansion of village postal services	Spread out over the region	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
HEALTH		
School Hygiene		
Establishment of Community Health Centers		
Rehabilitation and Expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		


PODI
TODJO
BATUL
TABATA
LELENG I.
POSO
TEMORO
DONGGI
TAMANUSI
KOLONODALE
TINOMPO
BUUMBELU
TOLO BAY
(TOMAIKI)
WOTU
MALILI
TJINAPUN
TOKO
PALOPO
PAKUE
WIAU
WAWALANDAWE
MABALE
LAVATA
ASOLO
SIWA
TAMBOLI
AMMUSU
WAWOTOBI
KENDARI
Ni
WOLIKI
SINGKANG
To Makasar
MOTAHA
BONE BAY
TANGKETADA
LAKARA
TOWARI
LAUUHANTOBELO
DAULE
RAHA
BONE
BUGINKALO
KASIPUTIH
SINDJA
M
A
KADJANG
BAUBAU
PASARWADJO
BILA
FLORES SEA

TARGET REHAB. & UPGRAD.
OF ROADS '69/70-73/74 =
165 KM.

SOUTH-EAST SULAWESI

22. PROVINCE : BALI

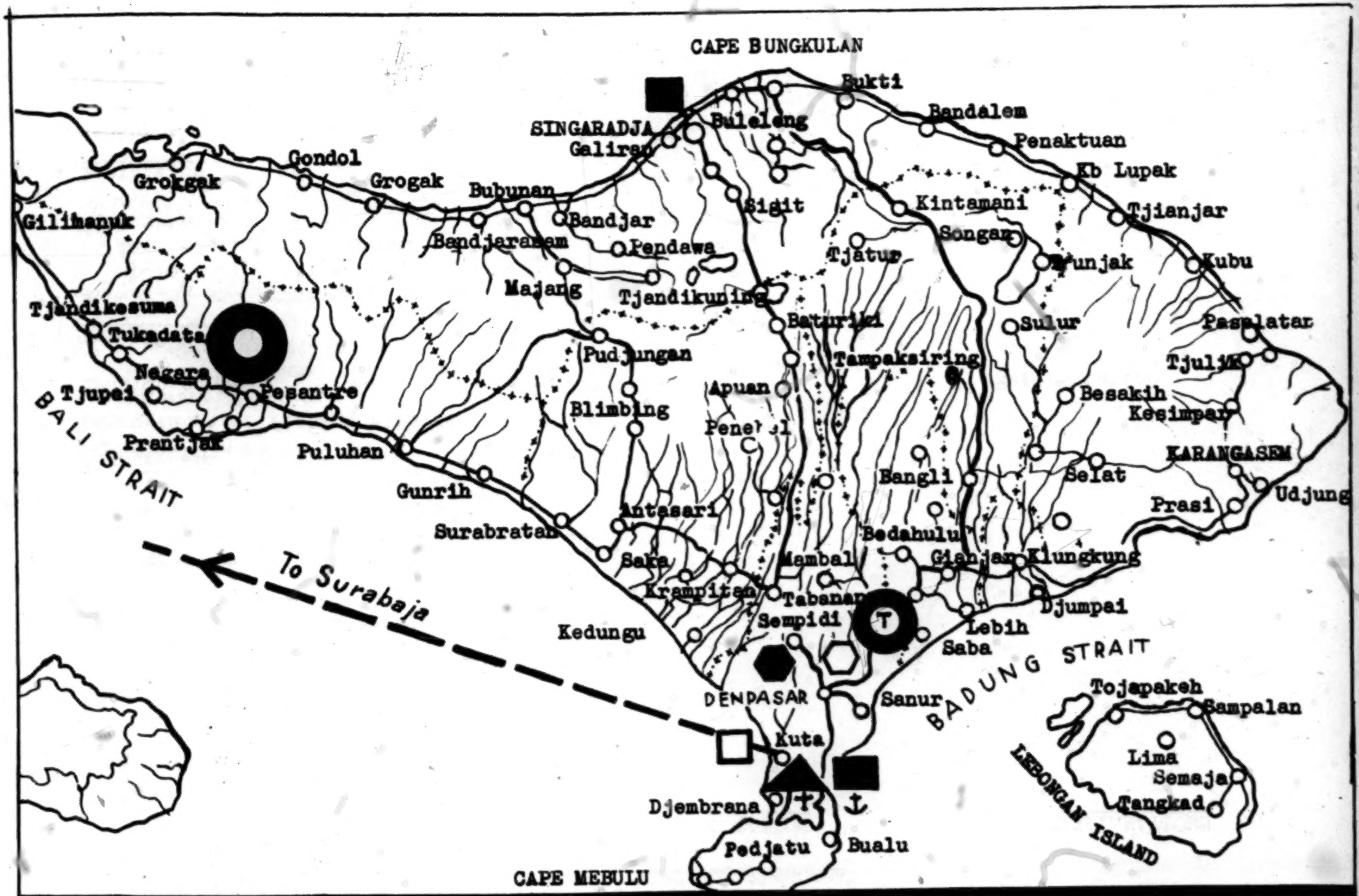
PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops *)		
Intensification of Food production		
Increase of extension services		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Improvement of fishing harbors		
Erosion control		
Rehabilitation of forestry	Mt Agung	Reforestation
Development of multipurpose forests		
Animal Husbandry		
Upgrading, research, and mass education on husbandry		

*) Indonesian term is palawidja, meaning: second crop, consisting of beans and other quick maturing food plants, planted after rice harvest.

PROJECT	LOCATION	EXPLANATIONS
Irrigation		
Rehabilitation and expansion of irrigation		
Project to protect against natural calamities and relieve of victims	Mt Agung	
Flood control		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and upgrading of light industries, handicrafts, and processing of agricultural products		
Electric Power		
Expansion of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation and upgrading of roads and bridges		Certain state/provincial/regency roads

PROJECT	LOCATION	EXPLANATIONS
Air Communications		
Upgrading of airport and facilities	Tuban	
Sea Communications		
Improvement of harbors and facilities	Buleleng and Benoa	
Improvement of buoys	Straits of Bali and Benoa	
Post and Telecommunications		
Mobile Postal Service	Denpasar	
Expansion of express postal service	Djakarta-Surabaja-Banjuwangi-Denpasar	
Village post offices	Spread out over the region	
Upgrading/expansion of clearing and cheque service	Denpasar	
Micro-wave telecommunications system	Djakarta-Semarang-Surabaja-Denpasar	
Tourism	Distributed throughout the region	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		

PROJECT	LOCATION	EXPLANATIONS
Upgrading of higher education:		
Udajana University	Denpasar	
Faculty of Agriculture		
Faculty of Veterinary Science		
Faculty of Medicine		
Development of Cultural Center	Denpasar	
Karawitan Conservatory	Denpasar	
Museum	Denpasar	
Restoration of Goa Gadjah (Elephant Cave)	Gianjar	
HEALTH AND FAMILY PLANNING		
School Hygiene		
Establishment of Community Health Centers		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		


CAPE BUNGKULAN
SINGARADJA
Galiran
Buleleng
Bukti
Bandalem
Penaktuan
Kb Lupak
Tjianjar
Kubu
Gilimanuk
Grokgak
Gondol
Grogak
Bubunan
Bandjar
Bandjaranam
Pendawa
Sigit
Kintamani
Songan
Tjatur
Tunjak
Majang
Tjandikuning
Tjandikesuma
Tukadata
Negara
Tjupei
Pesantre
Prantjak
Pudjungan
Baturiti
Tampaksiring
Sulur
Pasalatar
Tjulik
Besakih
Kesimpar
KARANGASEM
Udjung
Prasi
Selat
Bangli
Apuan
Penebel
Blimbing
Puluhan
Gunrih
Antasari
Surabratan
Saka
Krampitan
Kedungu
Mambal
Tabanan
Bedahulu
Gianjar
Klungkung
Djumpai
Sempidi
Lebih
Saba
DENPASAR
Sanur
Kuta
Djembrana
Pedjatu
Bualu
CAPE MEBULU
BALI STRAIT
To Surabaja
BADUNG STRAIT
Tojapakeh
Sampalan
Lima
Semaja
Tangkad
LEBONGAN ISLAND

TARGET REHAB. & UPGRAD.
OF ROADS '69/70 - 73/74 = 450 KM.

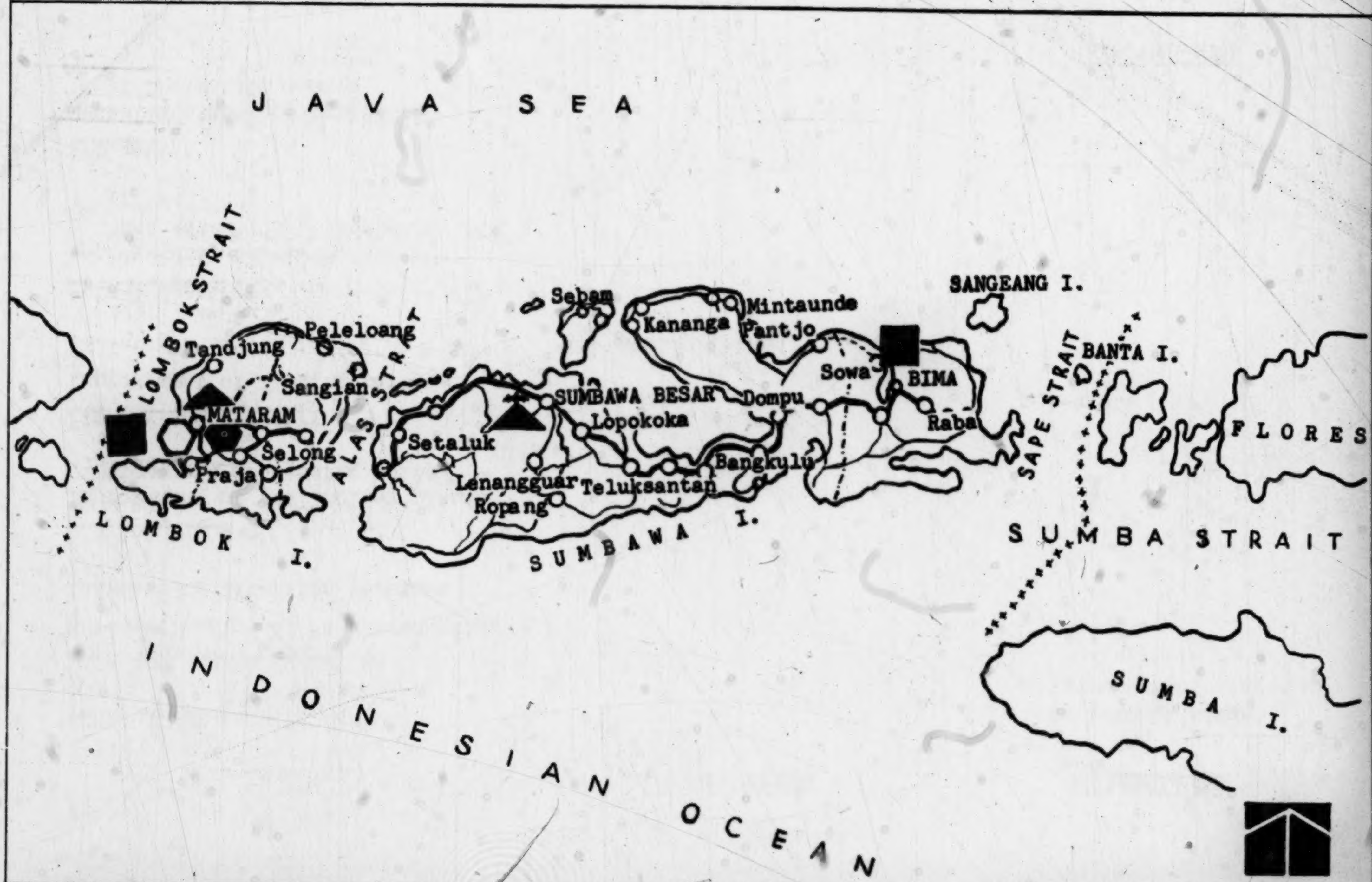
BALI

23. PROVINCE: WEST NUSATENGGARA

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops		
Intensification of Food production		
Increase of extension services		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Improvement of fishing harbors		
Erosion control		Reforestation
Animal Husbandry		
Marketing and processing, upgrading, research, and mass education on animal husbandry		
Irrigation		
Rehabilitation and expansion of irrigation system		

PROJECT	LOCATION	EXPLANATIONS
Flood control		
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and upgrading of light industries, handicrafts and processing of agricultural products		
Electric Power		
Expansion of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation and upgrading of roads and bridges		Certain state/provincial/regency roads
Air Communications		
Rehabilitation/upgrading of airport and facilities		
Sea Communications		
Navigational and safety facilities	North Lombok Sangeang Island	

PROJECT	LOCATION	EXPLANATIONS
Post and Telecommunications		
Upgrading and expansion of postal and clearing services	Sumbawa Bima	
Long-distance telecommunication system	Mataram-Surabaja-Dompu-Selong-Mataram	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education:		
University of West Nusatenggara, Faculty of Agriculture, Faculty of Veterinary Science and Animal Husbandry	Mataram	
HEALTH		
School Hygiene		
Establishment of Community Health Centers		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		


JAVA SEA
LOMBOK STRAIT
ALAS STRAIT
SAPE STRAIT
SUMBA STRAIT
INDONESIAN OCEAN
LOMBOK I.
SUMBAWA I.
SANGEANG I.
BANTA I.
FLORES
SUMBA I.
Tandjung
Peleloang
Sangian
MATARAM
Selong
Praja
Setaluk
Lenangguar
Ropang
SUMBAWA BESAR
Lopokoka
Teluksantan
Bangkulu
Sebam
Kananga
Mintaunde
Pantjo
Dompu
Sowa
BIMA
Raba

TARGET REHAB.& UPGRAD.
OF ROADS '69/70 - 73/74 =
230 KM.

WEST NUSA TENGGARA

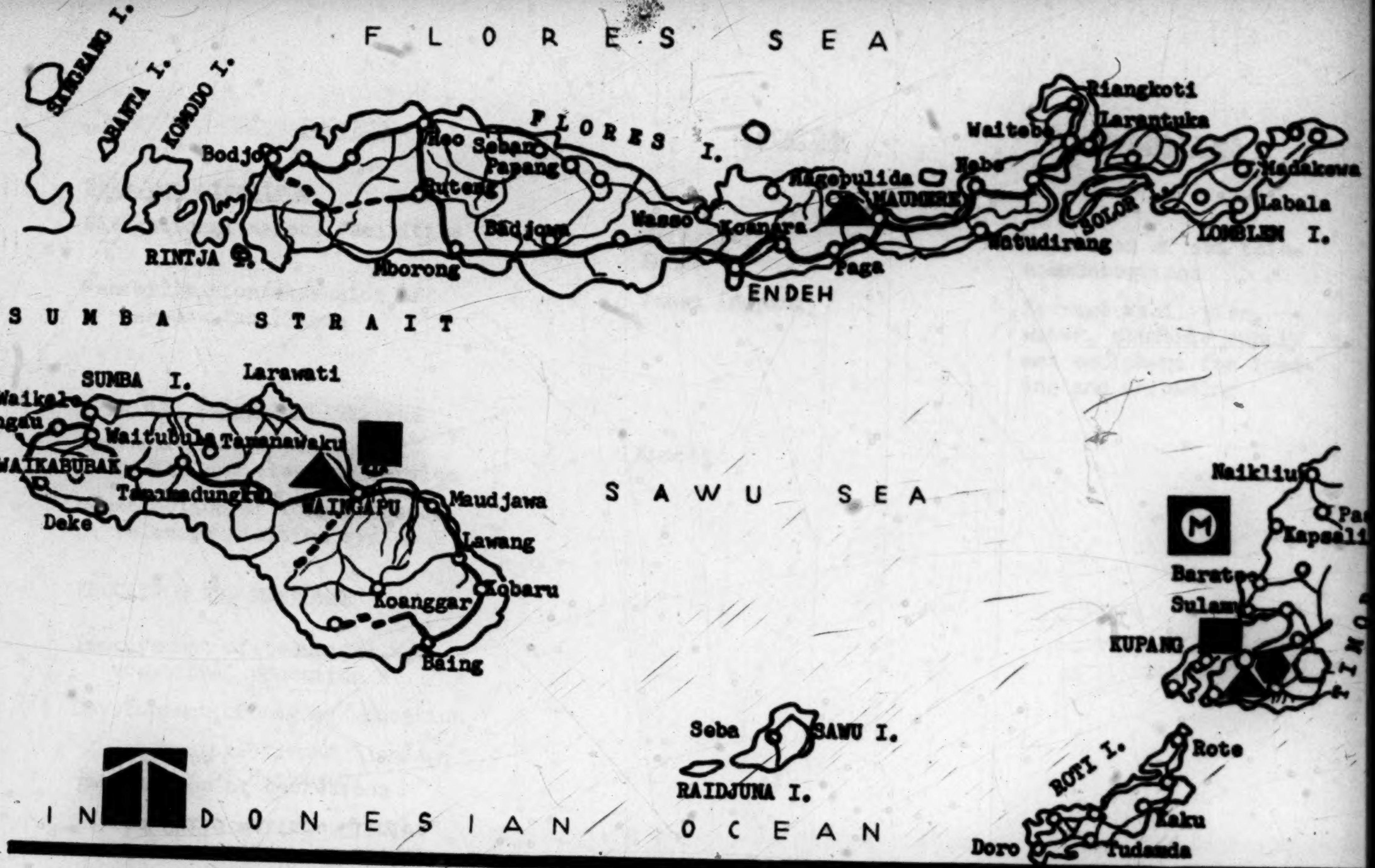
24. PROVINCE: EAST NUSATENGGARA

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops		
Intensification of Food production		
Increase of extension services		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Improvement of fishing harbors		
Forest protection	Komodo Island	
Animal Husbandry		
Improvement, research, and mass education on husbandry		
Irrigation		
Rehabilitation and expansion of irrigation system		

PROJECT	LOCATION	EXPLANATIONS
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and upgrading of light industries, handicrafts, and processing of fish products		
Mining		
Oil and natural gas	Timor	Off-shore
Electric Power		
Expansion of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Certain state/provincial/regency roads
Public and Urban transportation	Kupang and surroundings	
Workshop for road upgrading		
Air Communications		
Rehabilitation/upgrading of airport and facilities	Kupang	

PROJECT	**LOCATION**	**EXPLANATIONS**
Sea Communications		
Navigational safety facilities	**Waingapu, Endeh**	Expansion of sea telecommunications
Rehabilitation/expansion of harbor facilities	**Tenau (Kupang)**	**Storage facilities, water, electric supply and equipment for loading and unloading**
Post and Telecommunications		
Upgrading and expansion of postal and clearing service	**Kupang**	
Construction of long-distance telecommunication system		
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education		
University of Nusa Tjendana Faculty of Husbandry		
HEALTH		
School Hygiene		
Establishment of Community Health Centers		

PROJECT	LOCATION	EXPLANATIONS
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		
Eradication of contagious diseases		


FLORES SEA
SANGEANG I.
BANTA I.
KOMODO I.
FLORES I.
Bodjo
Reo
Sebar
Papang
Ruteng
Badjawa
Wasso
Koanara
Magepulida
MAUMERE
Nebe
Waitebe
Riangkoti
Larantuka
Madakewa
Labala
LOMBLEN I.
SOLOR
Watudirang
Paga
ENDEH
Mborong
RINTJA
SUMBA STRAIT
SUMBA I.
Larawati
Waikelo
Langau
Waitubula
Tamanawaku
WAIKABUBAK
Tanamadungku
WAINGAPU
Maudjawa
Lawang
Kobaru
Koanggar
Baing
Deke
SAWU SEA
Naikliu
Pa
Kapsali
Barate
Sulam
KUPANG
TIMOR
Seba
SAWU I.
RAIDJUNA I.
ROTI I.
Rote
Kaku
Tudamda
Doro
INDONESIAN OCEAN

TARGET REHAB. & UPGRAD.
OF ROADS '69/70-73/74 =
500 KM.

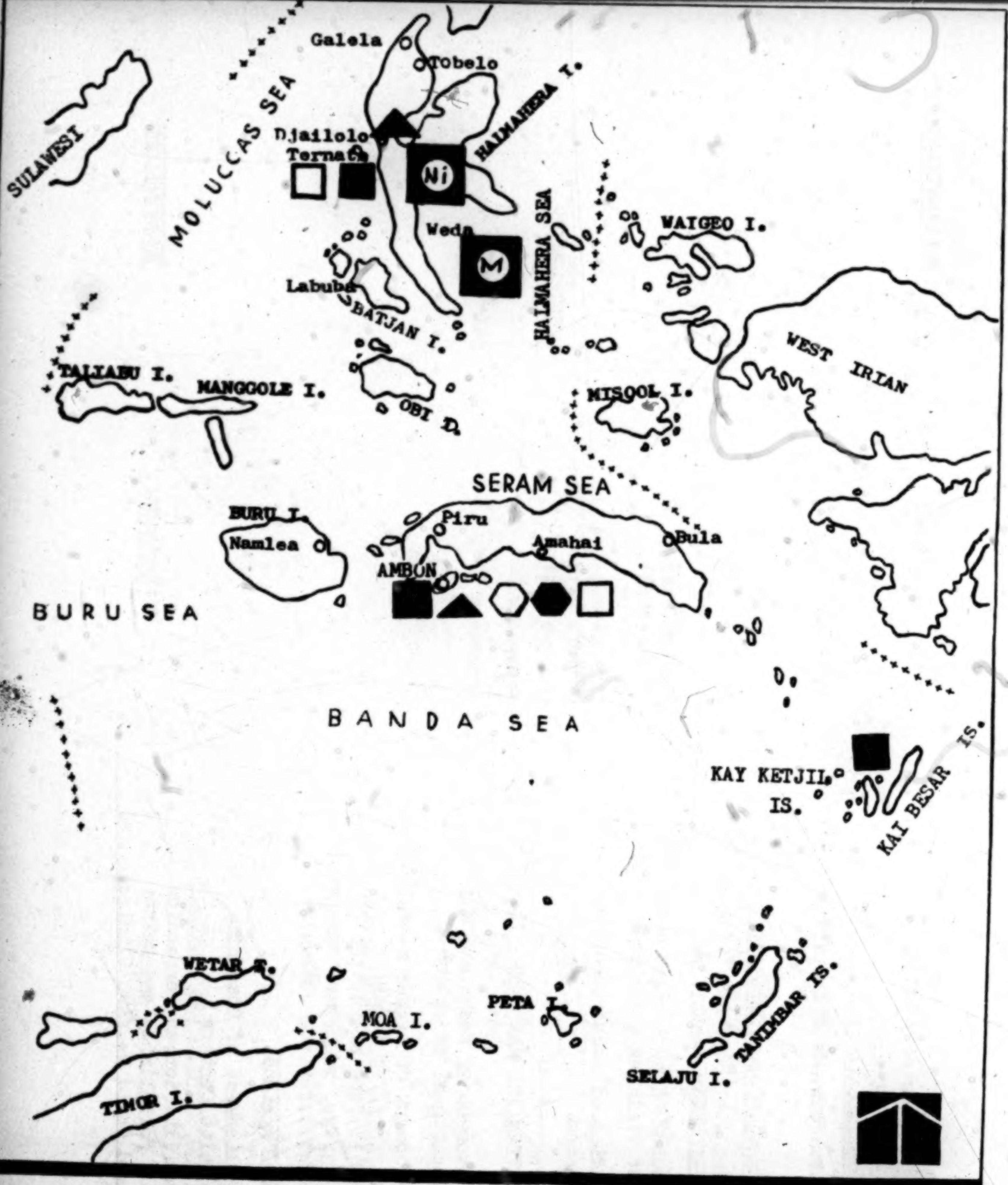
EAST NUSATENGGARA

25. PROVINCE: MALUKU

PROJECT	LOCATION	EXPLANATIONS
AGRICULTURE AND IRRIGATION		
Rice and second Foodcrops		
Intensification of Food production		
Increase of extension services		
Estates		
Improvement of smallholder plantations and processing units		
Fishery and Forestry		
Improvement of fishing harbors	Ambon Ternate	
Preservation of fish resources		
Intensification of production and processing of non-timber forest products		
Irrigation		
Rehabilitation and expansion of irrigation system		

PROJECT	LOCATION	EXPLANATIONS
INDUSTRY, MINING AND ELECTRIC POWER		
Industry		
Rehabilitation and upgrading of light industries, handicrafts, and processing of agricultural products		
Mining		
Oil and natural gas	Halmahera	Off-shore
Nickel	Halmahera	
Bauxite	Taliabu Island Mangale Island Buru Island Obi Island Ceram Island Aru Islands	Exploration
Electric Power		
Expansion of installed electric power		
COMMUNICATIONS		
Land Communications		
Rehabilitation/upgrading of roads and bridges		Certain state/provincial/regency roads

PROJECT	LOCATION	EXPLANATIONS
Sea Communications		
Sea transportation facilities	Ambon	
Post and Telecommunications		
Expansion of post and telecommunication facilities		
Upgrading of post offices in the villages and remote areas	Spread over the region	
Upgrading of local telephone system	Ambon	
EDUCATION AND MANPOWER		
Improvement of technical and vocational education		
Development of higher education:		
University of Pattimura		
HEALTH		
School Hygiene		
Establishment of Community Health Centers		
Rehabilitation and expansion of Policlinics and Mother and Child Welfare Clinics		


Galela
Tobelo
HALMAHERA I.
MOLUCCAS SEA
SULAWESI
Djailolo
Ternate
Ni
Weda
M
HALMAHERA SEA
WAIGEO I.
Labuha
BATJAN I.
WEST IRIAN
TALIABU I.
MANGGOLE I.
OBI I.
MISOOL I.
SERAM SEA
BURU I.
Namlea
Piru
Amahai
Bula
AMBON
BURU SEA
BANDA SEA
KAY KETJIL IS.
KAI BESAR IS.
WETAR I.
MOA I.
PETA I.
TANIMBAR IS.
SELAJU I.
TIMOR I.

TARGET REHAB.& UPGRAD.
OF ROADS '69/70-73/74 = 100 KM.

MOLUCCAS

26. PROVINCE: WEST IRIAN

A. Introduction

The development policy for West Irian is aimed at uplifting the social and economic life of the people in that region in such a way that within a relatively short time a solid foundation can be established for further social as well as economic development equal to the other parts of Indonesia. To achieve this goal several steps are to be taken as follows:

a. Short-term targets

1. fulfill the daily primary needs of the people.
2. upgrade the social consciousness of the people toward national unity.
3. increase employment opportunities.
4. improve public administration.
5. upgrade the vital infrastructure to achieve and maintain social and economic stability.

b. Long-term targets

1. continue and intensify efforts which will strengthen all the short-term goals mentioned above.
2. increase the output of the existing production units.
3. broaden and upgrade the labor force through education and training.
4. make up the labor shortage, especially in agriculture and technology.
5. encourage religious life in accordance with the principles of

Pantjasila.

6. intensify survey, research and exploration of resources for regional development.

B. Sectoral Policy

To achieve the short-term as well as the long-term goals mentioned above, sectoral policies and steps will be taken in such a way that all planned activities reinforce each other. Policies and steps which are planned for 1969/1970 and also for the whole plan (five-year) take into consideration the limited capacity of public administration and development machinery, as well as the limitations caused by geographical conditions and the state of the infrastructure.
Besides all these limitations, the still inadequate exploration and exploitation of natural resources is one of the important problems to be solved in the plan.

The main goal to be attained in this region for 1969 is stabilization and consolidation in the political, social, and security fields so that the emphasis of the plan for 1969 is on upgrading and rehabilitation of transport facilities, land, water and sea transportation, to maintain the flow of supplies and the distribution of basic necessities to the people. Another important problem at this moment is to supply housing for government officials. It is intended that the Five-Year Plan will at least minimize all the bottlenecks mentioned above.

I. Communications

In order to maintain supply and distribution of basic necessities to the people, and make the wheels of government run smoothly in this area, the most vital prerequisite appears to be sea transport. Present sea transport capacity can only serve 40 percent of the needs as can be seen from the availability of ships as well as other facilities needed for sea transportation. In addition, there is no way to get around the need to use air transport to reach the hinterland, because to many places there is no overland communication at all.

II. The Social Sector and Public Administration

In order to improve the social welfare of the people of West Irian emphasis is placed on educational activities, especially elementary education, vocational schools, and activities which will improve public health.

Public Administrators in the region will face very difficult tasks, because their duties are not only to improve the welfare of the people, but also to educate the masses to a better standard of social life which at present is relatively very backward indeed. Besides, bottlenecks originating in the bad physical conditions in the region are challenges that must be overcome with the very limited means available. For these reasons, the development and upgrading of public administration and all other public facilities, physical as well as non-physical, are very essential.

III. The Production Sector

At this time almost all goods needed by the people, especially by those who live in the coastal areas and in towns are imported. This is because the region is at a very low stage of development, and able only to produce a few goods. The difficulty of extending inter-regional trade to this region is one of the factors which increase the need for imports. Notwithstanding the very limited raw-materials and labor force available in the region, the need is felt to maximize the use of every productive potential so that imports can be reduced.

In addition, such efforts will create additional employment opportunities and increase the income of the region. This will also have positive effects in the area of the development of social well-being in the region, and the development of an entrepreneurial class which is very weak at this moment.

With the formation of the "Joint Development Commission" within the framework of using the FUNDWI, it is sincerely hoped that the productive potential of the region will be fully utilized.

IV. The Public Utility Sector

In this plan, the public utility sector includes rehabilitation and construction of houses (for officials), water supply and electric power. The situation in the region at this time, as has been mentioned above, is such that a way must be found to overcome the difficulties in housing for government officials. Although it is realized that using the available funds to construct government housing will necessarily restrict the scope and intensity of development in other sectors, because this is still a newly opened area (so that facilities for accommodation cannot be provided in some other manner), the construction of this housing must be carried out in order to fulfill the minimum requirements.

Rehabilitation and upgrading of water supply and electric power will be limited to the principal towns.

C. Expenditures

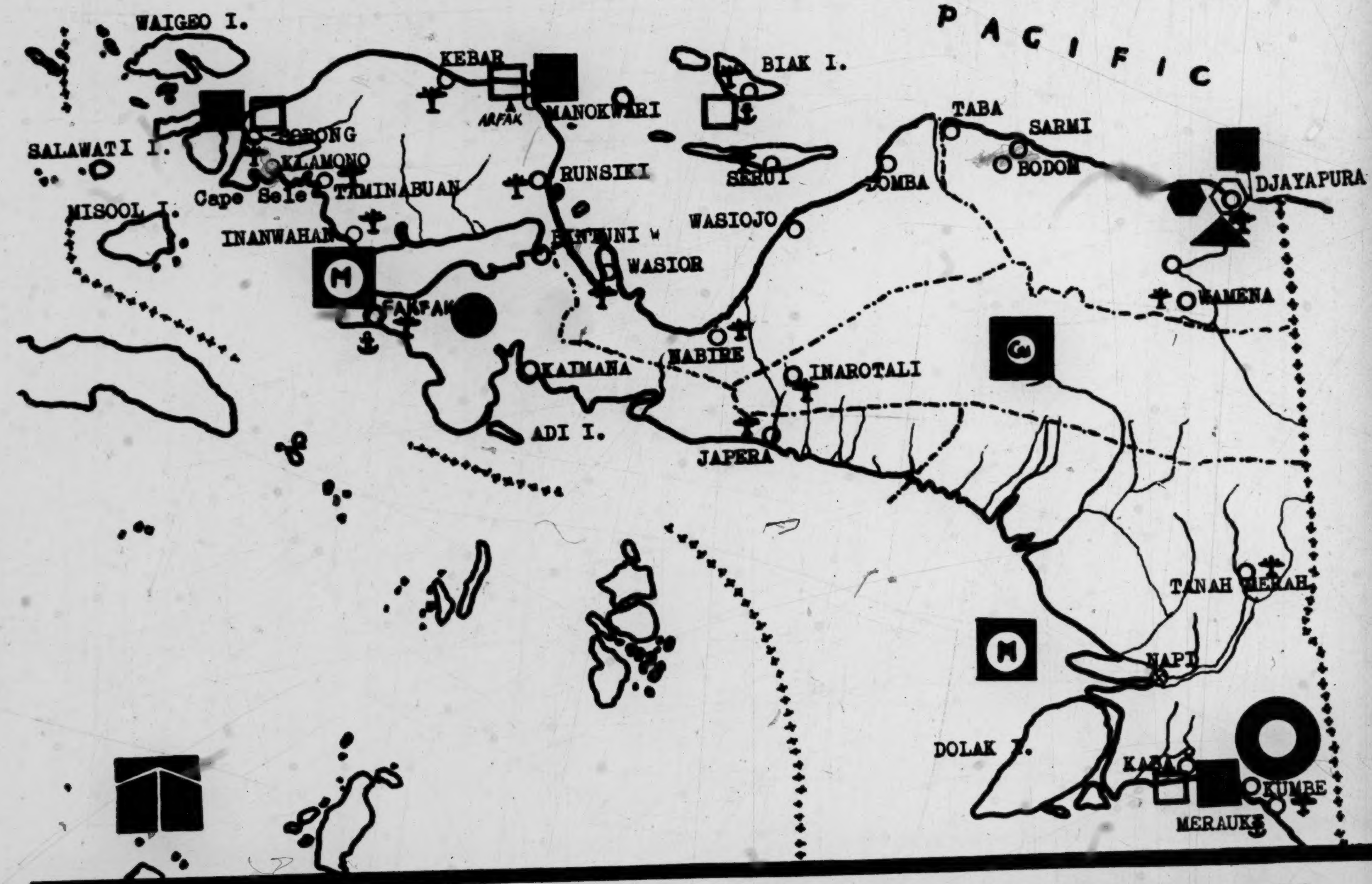
Seen from the expenditures side, the rupiah financing for the Five-Year Development Plan for West-Irian can be divided into two categories:

a. Expenditures as FUNDWI Counterpart Funds.

b. Expenditures outside FUNDWI Counterpart Funds.

The plan is formulated in such a way that the development financed by these two sources will complement and reinforce each other.

The development plan which is formulated within the framework of FUNDWI stresses mainly rehabilitation and development in the field of economics, while other sources are used for social and public development projects. The money available in the FUNDWI is US $ 30 million, while the Indonesian Government must provide a "Counterpart contribution" in rupiahs amounting to Rp.7 billion for economic rehabilitation and development, and about Rp. 3.5 billion for social development. This means that the total counterpart funds needed will be about Rp. 10.5 billion.


PACIFIC
WAIGEO I.
SALAWATI I.
MISOOL I.
SORONG
KLAMONO
Cape Sele
TAMINABUAN
INANWAHAN
KEBAR
ARFAK
MANOKWARI
RUNSIKI
BINTUNI
WASIOR
FAKFAK
KAIMANA
ADI I.
BIAK I.
SERUI
WASIOJO
NABIRE
INAROTALI
JAPERA
DOMBA
TABA
SARMI
BODOM
DJAYAPURA
WAMENA
TANAH MERAH
NAPI
DOLAK I.
KABA
KUMBE
MERAUKE

TARGET REHAB.& UPGRAD.

WEST IRIAN

THE FIRST FIVE-YEAR DEVELOPMENT PLAN

(1969/70 - 1973/74)

Related Material

DEPARTMENT OF INFORMATION
REPUBLIC OF INDONESIA

TABLE OF CONTENTS

Volume Four

Relevant Material

1. Decree of the Provisional MPR No. X/MPRS/1966,

concerning: The Placing of All Institutions of the State at both Central and Regional Level in the Positions and with the Functions Stipulated in the 1945 Constitution (5th July 1966) 1

2. Decree of the Provisional MPR No. XXIII/MPRS/1966,

concerning: Renewal of Policy as to the Basis of the Economy, Finance & Development (5th July 1966) 4

3. Resume of Minutes of Discussions in the Meetings of the Provisional MPR 21

4. Decree of the Provisional MPR No. XLI/MPRS/1968,

concerning: The Basic Task of the Development Cabinet (27th March 1968) 27

5. Decision of the President No. 319/1968,

concerning: The Five-Year Development Plan (30th December 1968) 30

6. Decision of the President No. 18/1969,
concerning: Operational Management of the Five-Year Development Plan 1969-1973 (28th February 1969) 32
— Annex I 37
— Annex II 47

7. Instruction of the President No. 4/1969,
concerning: Working Relations between Central and Regional Government Apparatus (28th February 1969) 48
— Diagram 54

8. Law No. 2/1969 on the State Budget for the year 1969/1970 55
— Clarification about Law No. 2/1969 58
— The State Budget for 1969/1970 (figures) 63
— Specification of the Development Budget (figures) 67

9. Presidential Message,
on the Eve of the Start of the Five-Year Development Plan (31st March 1969) 73

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DECREE OF THE
PROVISIONAL MADJELIS PERMUSJAWARATAN RAKJAT
REPUBLIC OF INDONESIA
No. X/MPRS/1966

concerning

The Placing of all Institutions of the State at both Central and Regional Level in the Positions and with the Functions Stipulated in the 1945 Constitution

WITH THE BLESSING OF GOD ALMIGHTY
THE PROVISIONAL MADJELIS PERMUSJAWARATAN RAKJAT
OF THE REPUBLIC OF INDONESIA,

Considering:

a. That the chaotic conditions in all fields of life of the People and State that came to a climax as the contra-revolutionary action of the "30th September Movement"/Indonesian Communist Party took place, were caused in part by deviations from the 1945 Constitution;

b. That the Provisional Madjelis Permusjawaratan Rakjat as the highest body in the State of the Republic of Indonesia that constitutes the embodiment of the Sovereignty of the People of Indonesia, has the obligation to stop deviations from the 1945 Constitution in keeping with the demands from the hearts of the people;

c. That the way to ensure that no more deviations occur is to place the institutions of the State back again into the positions and with the functions according to the 1945 Constitution;

In view of:

Clause (2) Article 1 of the 1945 Constitution;

Having heard:

The deliberations in meetings of the Provisional MPR from 20th June to 5th July 1966 inclusive;

HEREBY RESOLVES:

To decree:

DECREE CONCERNING THE PLACING OF ALL INSTITUTIONS OF THE STATE AT BOTH CENTRAL AND REGIONAL LEVEL IN THE POSITIONS AND WITH THE FUNCTIONS STIPULATED IN THE 1945 CONSTITUTION.

Article 1

Before the Madjelis Permusjawaratan Rakjat that is the outcome of general elections has been formed, the Provisional MPR has the position and the functions of the MPR referred to in the 1945 Constitution.

Article 2

All Institutions of the State at both Central and Regional level shall be restored to the positions and functions in keeping with what is stipulated in the 1945 Constitution.

Article 3

The power relations between the institutions together with their respective responsibilities shall be based absolutely upon the 1945 Constitution.

Article 4

The Government together with the Dewan Perwakilan Rakjat Gotong-Royong is hereby charged with enacting legislation as the legal basis for the institutions referred to in the 1945 Constitution in all its purity.

Decreed at: Djakarta
On : 5th July 1966.

PROVISIONAL MADJELIS PERMUSJAWARATAN RAKJAT
OF THE REPUBLIC OF INDONESIA

Chairman : (sgd.) A.H. Nasution, General
Vice-Chairman: (sgd.) Osa Maliki
Vice-Chairman: (sgd.) H.M. Subchan Z.E.
Vice-Chairman: (sgd.) M. Siregar
Vice-Chairman: (sgd.) Mashudi, Brig. Gen.

DECREE OF THE
PROVISIONAL MADJELIS PERMUSJAWARATAN RAKJAT
REPUBLIC OF INDONESIA
No. XXIII/MPRS/1966

concerning

Renewal of Policy as to the Basis of the Economy, Finance and Development

WITH THE BLESSING OF GOD ALMIGHTY
THE PROVISIONAL MADJELIS PERMUSJAWARATAN RAKJAT
OF THE REPUBLIC OF INDONESIA,

Considering:

a. That, in order to surmount the people's sufferings which are constantly increasing in consequence of the decline of Indonesia's economy caused by mismanagement, waste, bureaucracy, corruption and the like, augmented by the contra-revolutionary uprising of the "30th September Movement"/Indonesian Communist Party and by deviations from the 1945 Constitution, policies in the field of the Economy, Finance and Development need to be renewed;

b. That the first step toward improvement of the people's economy is to re-appraise all the foundations of economic, financial and development policies, in order to obtain a correct balance between what is undertaken and the objectives it is desired to achieve, namely, the Indonesian socialist society that is based upon Pantja Sila;

c. That, being conscious of the fundamental source of economic decline, it follows that execution of (b) above means returning to implementation of the 1945 Constitution consistently and in all its purity, because the 1945 Constitution contains within itself the surety of stipulations or objective guarantees that enable and even oblige effective supervision by the people of government policies through the organs of people's representation.

In view of:

a. The stipulations and the spirit of the 1945 Constitution, both as a whole and in particular Articles 23, 27, 33 and 34 together with their elucidations;

b. The President's address entitled "Nawaksara" to the Provisional MPR on 22nd June, 1966, together with all its annexes;

c. The contents and spirit of those parts of the Economic Declaration capable of fulfilling the People's Threefold Demands and the Message to redeem the Sufferings of the People;

d. The Memorandum from the Dewan Perwakilan Rakjat Gotong-Royong on Basic Ideas for Resolving Difficulties in the Economic, Financial and Development Field, dated 7th May, 1966;

e. The function of the Provisional MPR as laid down in Article 1 of the Procedural Regulations (Provisional MPR Decision no. 1/MPRS/1966).

Having heard:

The deliberations in meetings of the Provisional MPR from 20th June to 5th July 1966 inclusive.

HEREBY RESOLVES:

To decree:

DECREE CONCERNING RENEWAL OF POLICY AS TO THE BASIS OF THE ECONOMY, FINANCE AND DEVELOPMENT.

Chapter I

Policy as to the Basis of the Economy, Finance and Development

Article 1

Conscious of the fact that the fundamental source of the swift process of decline of Indonesia's economy during these last several years has been the deviations from implementation of the 1945 Constitution in all its purity, which are reflected in the non-existence of effective supervision by the organs of people's representation over the government's economic policy, and the constant lack of harmony between politccal interests and economic interests together with the setting aside of rational economic principles in facing economic problems, it follows that the way out is to return to implementation of the 1945 Constitution consistently and in all its purity.

Article 2

In conformity with the stipulations of the 1945 Constitution, effective supervision by the people over the government's economic policy is to be conducted through the competence of the Dewan Perwakilan Rakjat in determining the state's budget of revenues and expenditure, and also through the powers of financial investigation of a Body outside the government which reports the results of its investigations to the Dewan Perwakilan Rakjat.

Article 3

Having established effective supervision by the people over economic policy, then, in keeping with the essence of the People's Threefold Demands and also heeding the importance of development in the spiritual and religious field, the problem of improving the people's economy must be given first priority amongst other national affairs, whilst the method of dealing with it needs to be based upon rational and realistic economic principles.

Article 4

The basis of ideals in building the Indonesian economic system, which must be reflected at all times in every economic policy, is Pantja Sila and the 1945 Constitution, especially Articles 23, 27, 33 and 34, together with the elucidations of them.

Article 5

The fundamentals of this basis of ideals is to build a system of guided economy based upon Pantja Sila that will ensure that economic democracy prevails and that is directed to the creation of a just and prosperous society blessed by God Almighty.

Article 6

Economic democracy possesses positive characteristics, namely:

(a) the economy is organised as a common endeavour based upon the principle of the family system, and is therefore not acquainted with the structure of class conflicts;

(b) the sources of the wealth of the state and of the state's finances are used with the concurrence of the organs of people's representation, whilst the supervision of that use is likewise a prerogative of the organs of people's representation;

(c) branches of production which are important for the state and which affect the life of the majority of the people are controlled by the state;

(d) citizens have freedom in their choice of employment and are given the right to work and to a living befitting for human beings;

(e) the right of private property is recognised and is to be utilised for the well-being of society, and, for this reason, may not be made into an instrument for the exploitation of one's fellow-men;

(f) the potentials, initiative and creative powers of every citizen may be developed to the utmost within the bounds of not damaging the common interests;

(g) the poor, and destitute children have the right to social guarantees.

Article 7

There is no place in economic democracy for negative characteristics such as:

(a) the system of "free-fight liberalism" that gives rise to exploitation of other men and nations and that, in its history in Indonesia, gave rise to and maintained structural weaknesses in Indonesia's position in world economy;

(b) the system of "state-ism" wherein the state together with the state's economic apparatus has complete domination and exerts pressure upon and kills the potentials and creative powers of economic units outside the state sector;

(c) monopolies that do harm to society.

Chapter II

Potential Economic Strengths

Article 8

Indonesia possesses potential economic strengths that are composed of: (1) the people's potentials and creative powers, and
(2) the natural riches that are potentially available.

In order to convert potential economic strengths into actual economic strengths, the natural riches must be extracted, processed and developed, whilst the people's creative powers and skills can be increased through education and training.

Article 9

Primarily, economic development means converting potential economic strengths into real economic strengths through the investment of capital, the use of technology, the addition to knowledge, the raising of skills, and the increase of the ability to organise and to manage.

Article 10

The overcoming of economic decline and the further development of economic potentials must be based upon the capacities and capabilities of the people of Indonesia themselves. However, this principle may not give rise to reluctance to utilise potential capital, technology and skill made available from abroad, so long as all such assistance truly serves the people's economic interests without causing dependence upon other countries.

Chapter III

The Scale of National Priorities

1. General

Article 11

Efforts to overcome the present economic decline which will simultaneously enable large-scale economic development in the future, occupy first place in the entire scale of national priorities so that domestic interests, economic interests in particular, must have positive precedence over the interests of foreign policy.

Article 12

With regard to economic projects the principal criterion in the scale of priorities is for projects producing goods and services that are badly needed for the interests of the majority of the people.

2. Short-Term Development

Article 13

In the operational field, the basis for economic, financial and development policy is a clear distinction as to meaning between the program for stabilisation and rehabilitation and the programme for development. At the present time, all potentials and efforts must be concentrated upon the success of stabilisation and rehabilitation.

Article 14

Economic development must be synchronised with effective additions to manpower every year.

Article 15

The short-term program comprises checking inflation (economic stabilisation) and restoration of production (rehabilitation) with a scale of priorities as follows:

(a) checking inflation;
(b) adequately supplying the need for foodstuffs;
(c) rehabilitation of the economic infrastructure;
(d) increasing export activities;
(e) adequately supplying the need for clothing.

Article 16

The above short-term program is to be preceded by a program to save the situation, the target being immediately to overcome the blockages and destruction in the fields of production of foodstuffs, exports, clothing and the economic infrastructure upon which these fields depend, through making available supplies of raw materials, supplementary materials, components, spare parts and capital in the minimum amounts.

Article 17

For the sake of overcoming the economic decline, a program of economic stabilisation and rehabilitation that is consistent and truly operational must be immediately determined and carried out.

Article 18

The principal components of that operational program for stabilisation and rehabilitation are: (1) a physical plan, and
(2) a monetary plan.

Article 19

The program for economic rehabilitation must be reflected in the physical plan, the main targets of which are:

(1) to restore and to raise the capacity of production in the fields of food, exports and clothing;
(2) to restore and improve the economic infrastructure upon which those fields depend.

Article 20

In order to restore productive capacity, raw materials, complementary materials, spare parts, capital and other things are needed in a minimum amount. This minimum need is to be guaranteed in the import policy, which may not stand on its own but must be an integral part of the program for economic stabilisation and rehabilitation.

Article 21

Rehabilitation must give priority to restoration of productive capacity in strategic sectors or primary sectors that are capable of arousing the people's potentials and creative powers or that can reduce the pressure of inflation quicker.

Article 22

For the sake of the success of rehabilitation it is absolutely essential to break through the obstructions of bureaucracy by means, amongst others, of carrying out de-concentration of management toward the regions or productive units without decreasing national economic unity and political unity.

Article 23

The plan for economic stabilisation must be reflected in the monetary plan, the principal targets of which are:

(1) to guarantee the rupiah and foreign-credit costs for executing the physical plan;

(2) to check the acceleration of inflation, bringing it to a level and and a price balance that are relatively stable and in keeping with with the people's purchasing power.

Article 24

In order to carry out the program for stabilisation and rehabilitation of the economy, an overall and integrated policy must be implemented that encompasses budgetary policy, fiscal policy, monetary policy, price policy, wage policy, balance of payments policy and the like, to be accompanied by institutional overhauls.

3. Long-Term Development

Article 25

For long-term development of the economy, the scale of priorities must be as follows:

(a) the agricultural field;
(b) the infrastructure;
(c) the field of industry/mining and oil.

Article 26

In view of the fact that economic activities at present are directed toward carrying out the stabilisation and rehabilitation plans, the balance of the Eight-Year National Overall Development Plan must be converted into the long-term plan referred to in Article 25.

Article 27

In this connection, all non-economic or non-productive projects must be immediately postponed.

Article 28

Before the stabilisation and rehabilitation plan has been fully carried out the development of new projects capable of interfering with the execution of the stabilisation and rehabilitation program cannot be justified.

4. Regional Development and Community Development

Article 29

Economic development is the development of economic potentials (economic resources). Because those economic potentials are to be found in the regions, it follows that national development is identical with regional development.

Article 30

For the sake of executing regional development, first priority must be given to rehabilitation and improvement of the system of communications (including building the Trans-Sumatra Highway) and community development.

Article 31

Implementation of transmigration must be stepped up and finalisation of the land reform/land use issue accelerated.

Article 32

Special attention is needed so that the stipulations are carried out immediately with regard to:

(a) the granting of wide autonomy to the regions;

(b) de-concentration of management in economic activities down to the regions under the co-ordination of the regional government;

(c) balanced allocation of finances between the Centre and the Regions.

Article 33

In order to assure harmony in national planning, the planning of regional development and of community development must be co-ordinated by the central government.

Article 34

In undertaking regional development, it must always be kept in mind that the economic growth of each region must in the final analysis be directed toward integration of the national economy. This means, amongst other things, that every obstruction interfering with the traffic of goods between the regions must be eliminated.

Article 35

Execution of the Three-Year plan for regional development can be continued so long as it does not conflict with the stipulations in this Decree.

5. Development of West Irian

Article 36

Special attention must be given to the regional development of West Irian in all fields, for the sake of raising the standard of living and of harmony in level with the regions.

Chapter IV

The Role of the Government

Article 37

Both in the period of surmounting the economic decline and also in the period of economic development the Government holds a positive role starting from the stipulations and the spirit of the 1945 Constitution.

Article 38

Besides controlling and itself executing all kinds of economic activities, the Government has the obligation to guide the non-governmental sector and to mobilise and develop the people's potentials and creative powers to the maximum.

Article 39

The Government's activities in their entirely both in actual economic undertakings and execution in the state sector and also in giving guidance outside the state sector, must constitute a single harmonious whole that is encompassed and reflected in the short-term economic program (stabilisation and rehabilitation) and the long-term economic program (development). From year to year these programs must be reflected in the state's budget of revenues and expenditure.

Article 40

In playing its role in the economic field the Government must stress supervision of the direction of economic activities rather than the greatest possible control of economic activities. De-bureaucratisation of the system of supervision and de-concentration of management of state enterprises is badly needed in this context.

Article 41

The principles of efficiency must be the criterion of the Government's activities in the economic field, with the understanding that deviations from these principles ought to be punished by sanctions.

Chapter V

The Role of Co-operatives

Article 42

Co-operatives constitute an important and proper apparatus in the organisational structure of the Indonesian economy that is based on the principle of the family system, and are the place in which to struggle for and to protect especially the interests of the small man.

Article 43

The task of Co-operatives is to give services and be active in the field of production and other economic fields; Co-operatives must also be made capable of proceeding toward implementation of Article 33 of the 1945 Constitution and its elucidation. The Government has the obligation of providing leadership, supervision, facilities and protection to Co-operatives. To this end there should be stipulations enacted by statute, namely a Law on Co-operatives, National Private Enterprise and State Enterprise.

Chapter VI

The Role of National Private Enterprise

Article 44

In keeping with the Government's task of developing the people's potentials and creative powers in the economic field as far as possible, therefore, within the bounds of the stipulations and the spirit of the 1945 Constitution, national private enterprises possess freedom to choose their respective fields of business, which are not affecting the life of the majority of the people and not of strategic value.

Article 45

Each group among the national private enterprises has the obligation to develop the Indonesian economy, whilst the definition and field of their activities are to be regulated by law.

Article 46

The development of private enterprise may not deviate from the principle of economic democracy which is characteristic of the system of guided democracy based upon Pantja Sila. Without negating the principles of efficiency, the organisation of private enterprise must enable the development of economic democracy within its sphere of activities. Supervision by the Government's apparatus is needed to this end. On the other hand, for the sake of development of their activities, national private enterprise has the right to obtain fitting service, care and assistance from the apparatus of the Government. In this connection a private enterprise forum is needed.

Chapter VII

Financing Policy

Article 47

In drawing up the state budget of revenues and expenditures, efforts must be made to ensure that the deficit can shortly be wiped out so that thereby the principal source of inflation can be eliminated.

Article 48

In drawing up the budget for expenditures a sound balance must be shown between expenditures in the material, the spiritual and the political fields.

Article 49

State revenues from direct and indirect taxes together with other receipts (especially from State Enterprises) must be increased in keeping with the people's capacities, a sense of justice and the state's spending needs, whilst there must be greater efficiency and intensity in collecting those taxes.

Article 50

The state's expenditures must be directed toward:

(a) the needs of the physical plan, and
(b) checking the speed of inflation.

Article 51

Real and effective economising must be carried out immediately through a drastic economising plan (austerity program) that is valid consistently for both civil and military expenditures.

Article 52

The Monetary Budget shall consist only of:

(a) routine budget;
(b) development budget;
(c) foreign currency budget, and
(d) credits budget.

The special budget is thus done away with, in the sense that the projects so far financed by it must now be integrated in/brought into accord with the routine, development and foreign currency budgets.

Article 53

The state's budget of revenues and expenditures must be determined by statute as laid down in the 1945 Constitution and it must have been drafted prior to the year for which it is effective.

Article 54

In investigating responsibilit_ for the wealth of the state, including the state's finances, the Comptrolling Body has the obligation to raise its activities to the level conforming with its competence as determined in the 1945 Constitution.

Article 55

In the context of safeguarding the state's finances in general and of supervising the banking system and making it sound in particular, a Basic Law on Banking and a Law governing the Central Bank should be determined immediately.

Chapter VIII

International Economic Relations

Article 56

In executing international economic relations in conformity with our independent and active foreign policy, the principles of national interest must at all times be given priority. This means, amongst other things, that in determining upon foreign commercial transactions economic principles must be held to firmly.

Article 57

Because exports constitute one of the principal sources for surmounting the economic decline, every effort must be mobilised to raise Indonesia's exports.

Article 58

The import policy must be directed toward the entry of goods that can directly raise production or of goods that are badly needed by the majority of the people, in keeping with an import plan.

Article 59

Use of the state's foreign credits obtained from the proceeds of of exports or from foreign loans must be truly made in rational and honest fashion.

Article 60

Foreign credits are needed from the program of stabilisation and rehabilitation. These credits can be justified only if they are truly an integral part of the stabilisation and rehabilitation plan in its entirely.

Article 61

The amount of the foreign credits that can be accepted is dependent upon the ability to repay in the future without further increasing the burden on the people, which is already excessive.

Article 62

In view of the limited amounts of capital available domestically in comparison with the requirements of national development, a law should be immediately determined concerning foreign capital, including foreign capital in Indonesia.

Article 63

Government Regulation No. 10 of 1959 should be renewed and be raised to the status of a statute.

Article 64

Although the benefits of foreign credits and foreign capital can be used (including by production sharing) for surmounting the economic decline and also for economic development, there must nevertheless be a firm determination to overcome economic difficulties with our own strength together with a firm determination to liberate ourselves from dependence on foreign countries.

Article 65

Immediate efforts must be made to re-establish Indonesia as a member of international economic institutions, including the International Monetary Fund, the International Bank for Reconstruction and Development, etc.

Chapter IX

The Pre-requisites of Execution

Article 66

For the sake of success in carrying out the various programs, plans, policies, etc. referred to above, it is urgently necessary to improve the Machinery of Government to make it capable of realising the program. In this apparatus of government the people place their trust and hopes whilst its authority lies fundamentally in the reactions of the people themselves.

13. The apparatus of the State should be simplified and excess manpower should be channelled to the industrial field.

II. FOREIGN TRADE

1. In tracing out the new direction, foreign trade should restore overseas confidence in the State of the Republic of Indonesia.
2. Exports must be increased and must be accompanied by steps to simplify the regulations governing exports and incentives.
3. The execution of foreign trade should be placed in one hand and be directed toward eradicating inflation.

III. ON EXECUTION OF THE POLICY OF DOMESTIC TRADE

1. Co-operatives should be given a role in all fields of economic, financial and development activities.
2. Development of the domestic economy can be carried out simultaneously through 3 apparatus: (a) Co-operatives sector; (b) State sector, and (c) National Private Enterprise sector.
3. BAMUNAS and the Organisasi Perusahaan Sedjenis are still needed to establish our economy.
4. State Enterprises, State Plantation Enterprises and State Commercial Enterprises should be re-organised (simplified).
5. Trading by foreigners in Indonesia is to be regulated by Statute.
6. The state and private sectors of the economy should be synchronised.
7. Oil contracts should be re-examined.
8. Execution of commercial economic policies in the import-export field must be based upon the reality of conditions in Indonesia itself. For instance, because Indonesia is an agrarian country, import policies must be directed toward progress in agriculture, to production in general and export in particular.

IV. FINANCIAL/MONETARY MATTERS

1. Inflation can be controlled through:

   (a) a program of consistent economising;

(b) not printing new money;

(c) restoring its function as the Central Bank of Bank Negara Unit I;

(d) issue of credits only to projects that are economically productive.

2. The approach to overcome inflation is through:
   (a) production approach;
   (b) monetary approach;
   (c) social approach ("labor" approach);
   (d) mental approach.
3. The state's budged of revenues and expenditures is to be composed in such a way as to avoid a deficit as far as possible.
4. Collection of state revenues is to be intensified and made efficient.
5. State expenditures are to be directed physically and to check inflation.
6. Prices can be reduced and stabilized under the following conditions:
   (a) politically stable conditions;
   (b) firmness and uniformity of government measures in reaching/executing decisions (no confusion);
   (c) the people should be compact and integrated in following the policies of the Vice-Premier for the Economic, Financial and Development Field.
7. The severe inflation still raging at present can be eradicated through radical and unconventional means without harm to the people through a further revaluation of currency such as was executed in December 1965, but it must first be thoroughly prepared and co-ordinated.

   This severe inflation cannot possible be eradicated through taxes, monetary regulations nor through raising production because any production whatsoever declines precisely because of the inflation.

8. The revaluation of currency on 13th December 1965 does not conflict with Article 31 of the Economic Declaration.
9. A stable currency is an absolute requirement for carrying out development. If development is commenced at times of severe/open inflation, it is certain that the finance required for carrying out the development plan will increase, so that even more severe inflation results. For this reason, if the government were now to carry out the Three-Year Development Plan there would be no results.
10. Two efforts in the direction of good conditions for the people are: INCREASING WAGES or REDUCING PRICES. The first of these two efforts must be followed up by steps to press prices down in consistent fashion, since otherwise hopes will be in vain.
11. There should be an Anti-Corruption Law (to be ratified immediately).
12. The Law establishing Balanced Financial Allocation between the Centre and the Regions should be completed immediately.
13. The allocation of the rupiah and foreign exchange budget must be based upon the order of priorities.
14. There should be a clarification of the role of private enterprise in the field of capitalisation with emphasis on the second category regions.
15. Greater efforts should be made to raise the national income.
16. The Farmers and Fishermen Co-operative Bank should be extended to the villages and should be capable of performing its task properly.

V. CENTRAL DEVELOPMENT

1. Do not talk about "development" as an excuse to justify spending, but plainly about "rehabilitation" and "stabilisation".
2. Certain Central Government development projects could be delegated to the Regions for implementation together with full responsibility.

3. Some suggestions for the order of development priorities:

   a. First Suggestion:

   (1) Infrastructure of the economy
   (2) Eradication of inflation
   (3) Drastic economising in all fields
   (4) Making the duties of the Comptrolling Body effective
   (5) "Show"-projects should be postponed/eliminated
   (6) Tax holidays for development projects implementation
   (7) Technical/vocational schools as the source of increasing skilled manpower
   (8) Infrastructure of the government sector.

   b. Second Suggestion:

   (1) Control of inflation
   (2) Securing adequate supplies of foodstuffs
   (3) Rehabilitation of the infrastructure
   (4) Increasing export activities
   (5) Securing adequate supplies of clothing.

4. Statutes should be passed concerning State Enterprises, State Trading Enterprises, Co-operatives, Private and Other Enterprises on the basis of Article 33 of the 1945 Constitution. (The Co-operatives Law No. 14/1965 should be revoked immediately).
5. Overlapping institutions/bodies in the field of economic development should be eliminated both at the Centre and in the Regions.
6. Vital and absolutely essential questions at present are:
   (a) Modest plans for an estimate of two years;
   (b) Quick-yielding projects;
   (c) Regional infrastructure projects.
7. The Three-Year Development Plan (1966-1968) should be ratified in the Fourth Session of the Provisional MPR.
8. Economic capacity should be raised to the utmost.
9. Telecommunications/radio projects should receive attention.
10. The postponement of development projects should not give rise to

unemployment.

11. Less important development projects can be given to private enterprises.
12. Technical/vocational education should be stressed (Article 8).
13. Private capital should be directed to raising production and to agricultural industries.

VI. REGIONAL DEVELOPMENT

1. Attention to stabilisation and rehabilitation should be based upon the economic potentials of the Regions, the villages and the co-operative units.
2. Productive national projects to which we are already committed should continue to be implemented.
3. Plans for regional development should be co-ordinated by the Centre and be based upon community development.
4. The 1956 Law on Proportional Allocations of Finance should be carried out again.
5. The Regions should be given full rights to export the weak export materials.
6. The infrastructure projects already existing in the Regions should receive attention and be given priority in execution.
7. The motto which should always be used now is: "The Regions are the regions of the Centre, and the Centre is the centre of the Regions."
8. Improvement of the infrastructure should be undertaken in gotong-royong fashion between the Centre and the Regions.
9. The benefits of the Bank for Regional Development should be realised.
10. Transmigration increases the people's autoactivity in increasing production that is undertaken together in gotong-royong fashion, through developing the co-operatives as the wheels of Indonesian Socialism.
11. Irrigation should be extended until it reaches the villages.

DECREE OF THE
PROVISIONAL MADJELIS PERMUSJAWARATAN RAKJAT
REPUBLIC OF INDONESIA
No. XLI/MPRS/1968

concerning

The Basic Task of the Development Cabinet

WITH THE BLESSING OF GOD ALMIGHTY
THE PROVISIONAL MADJELIS PERMUSJAWARATAN RAKJAT
OF THE REPUBLIC OF INDONESIA,

Considering:

a. That in the framework of implementing the broad lines of State Policy and the Five-Year Development Plan, it is deemed necessary to establish a Development Cabinet at once;

b. That this Development Cabinet should hold fast to the basis and principles of the 1945 Constitution, i.e. a Law-abiding State, Constitutional System and Democracy based on Pantja Sila;

c. That the policy of the Development Cabinet, in conformity with the desire of the people, strive for stabilisation and national development;

d. That, henceforth, it is necessary to stipulate the basic policy of the Government for five years;

Having in mind:

1. The 1945 Constitution and its Elucidation;
2. Provisional MPR Decree No. X/MPRS/1966;
3. Provisional MPR Decree No. XLIV/MPRS/1968;

Having heard:

The deliberations in meetings of the Fifth General Session of the Provisional MPR from 21st March to 27th March 1968 inclusive;

HEREBY RESOLVES:

To decree:

DECREE CONCERNING THE BASIC TASK OF THE DEVELOPMENT CABINET

Article 1

The basic task of the Development Cabinet is: to continue the tasks of the Ampera Cabinet, specified as follows:

a. To create political and economic stabilisation as a condition for the successful implementation of a Five-Year Plan and the General Elections;

b. To draw up and to carry out a Five-Year Development Plan;

c. To hold General Elections in accordance with Provisional MPR Decree No. XLII/MPRS/1968;

d. To restore public order and security by wiping out all remnants of the "30th September Movement"/Indonesian Communist Party and any undermining, deviation and treason against Pantja Sila and the 1945 Constitution;

e. To further execute the improvement and purification of the State Apparatus, at the centre and down to regions.

Article 2

The Development Cabinet should have been formed ultimately on 5th July, 1968 to succeed the Ampera Cabinet by authority of this Decree.

Article 3

The Cabinet shall consist of Ministers with the following qualifications:

a. Faithful to the One Supreme God;

b. Loyal to the 17th August 1945 Revolution, the Unitary Republic of Indonesia as well as Pantja Sila and the 1945 Constitution;

c. Possessing authority;

d. Honest in his dedication to the people's interest;

e. Capable/expert in the field of his Department;

f. Supported by the People;

g. Not involved, directly or indirectly, in the "30th September Movement"/Indonesian Communist Party and its supporters.

Article 4

This Decree should come into force on the day of its decree.

Decreed at: Djakarta
On : 27th March, 1968.

PROVISIONAL MADJELIS PERMUSJAWARATAN RAKJAT
OF THE REPUBLIC OF INDONESIA

Chairman : (sgd.) A.H. Nasution, General
Vice-Chairman: (sgd.) Osa Maliki
Vice-Chairman: (sgd.) H.M. Subchan Z.E.
Vice-Chairman: (sgd.) M. Siregar
Vice-Chairman: (sgd.) Mashudi, Brig. Gen.

DECISION OF THE PRESIDENT
OF THE REPUBLIC OF INDONESIA
No. 319 of the year 1968

concerning

The Five-Year Development Plan

THE PRESIDENT OF THE REPUBLIC OF INDONESIA,

Considering:

1. that it is the aim of struggle of the New Order to raise the standard of living of the People of Indonesia, which aim can only be achieved by carrying out development by stages and according to plan;
2. that the results which have been achieved under the program of political and economic stabilization, have at present become a basis for the implementation of development which is strong enough;
3. that based on MPRS Decree No. XLI/MPRS/1968, the task of composing and implementing the Five-Year Development constitutes one of the duties of the Development Cabinet;
4. that the Government has, at present, succeeded in composing the Five-Year Development Plan 1969-1973, which will become a basis and guide for the Government in carrying out above-mentioned MPRS Decree from year to year;
5. that based on above-mentioned considerations, it is deemed necessary to issue a Presidential Decision to authorize the Five-Year Development Plan 1969-1973.

Having in mind:

1. Article 4 clause (1) of the 1945 Constitution;
2. MPRS Decree No. XLI/MPRS/1968;
3. Decision of the President of the Republic of Indonesia No. 183 of

the year 1968.

Having heard: The considerations of the National Development Planning Board and deliberations during sessions of Cabinet;

HEREBY DECIDES:

To enact:

DECISION OF THE PRESIDENT OF THE REPUBLIC OF INDONESIA CONCERNING THE FIVE-YEAR DEVELOPMENT PLAN 1969 - 1973:

Article 1

The Five-Year Development Plan as contained in Volumes I, II and III of the annex to this Presidential Decision constitutes a basis and guide for the Government for the implementation of the Five-Year Development as has been charged by MPRS.

Article 2

Implementation policies of the Five-Year Development Plan will be molded into Annual Plans which are reflected in the State Budget and other policies.

Article 3

The molding into Annual Plans as meant in Article 2 of this Presidential Decision, is carried out while considering possibilities for changes and developments in the situation which necessitate adjustments of the Five-Year Development Plan.

Article 4

This Presidential Decision comes into force on the day of enactment.

Enacted in: Djakarta
On : 30th December, 1968.

PRESIDENT OF THE REPUBLIC OF INDONESIA

(sgd.) Soeharto, General of the Army

DECISION OF THE PRESIDENT
OF THE REPUBLIC OF INDONESIA
No. 18 of the year 1969

concerning

Operational Management of the Five-Year Development Plan 1969-1973

THE PRESIDENT OF THE REPUBLIC OF INDONESIA,

Considering:

a. that for the successful implementation of the Five-Year Development Plan in particular and the Pantja Krida (Five-point Basic Tasks) in general, it is necessary to introduce a working system being capable of keeping track of the operational plan implementation and co-ordinating, in an intensive, efficient and effective way, the activities of various Departments/Agencies participating in various sectors of the fields of development and other fields of duties of the Government;

b. that in this connection it is deemed necessary to reorganize the existing working system of Government projects and to bring it in line with the targets of development to be reached based on the Five-Year Development Plan.

In view of:

1. Article 4 clause (1) of the 1945 Constitution;
2. MPRS Decree No. XXIII/MPRS/1966;
3. MPRS Decree No. XLI/MPRS/1968;
4. Decision of the President of the Republic of Indonesia No. 183 of the year 1968;
5. Decision of the President of the Republic of Indonesia No. 319 of

the year 1968;

With the revocation of the Decision of the President of the Republic of Indonesia No. 199 of the year 1968, dated June 18, 1968;

HAS RESOLVED:

To enact:

DECISION OF THE PRESIDENT OF THE REPUBLIC OF INDONESIA CONCERNING THE OPERATIONAL MANAGEMENT OF THE FIVE-YEAR DEVELOPMENT PLAN

Chapter I

General Provisions

Article 1

(1) In order to smoothen and guarantee successful implementation of the Five-Year Development, it is necessary to institute an operational management with the purpose of intensifying, co-ordinating, integrating and synchronizing plan implementation amongst Departments/Agencies for the sectors as contained in Annex I of this Presidential Decision.

(2) "Sector" in this Presidential Decision is understood to mean the activities in the field of development as well as in the field of the Government duties which need intensive co-ordination, integration and synchronization between one Department and the various agencies.

Chapter II

Leadership and Operational Management of Development

Article 2

(1) The President shall hold the Leadership and the operational management of Development.

(2) In implementing his task mentioned in clause (1) of this Article,

the President shall be assisted by a State Minister in charge of Operational Supervision of Development, whose task is to exercise development operational supervision.

(3) In implementing his task and duty the State Minister for Operational Supervision of Development shall be directly responsible to the President.

Article 3

In order to conduct the Leadership and Operational Management of Development, the President shall have a Secretariat for Operational Management of Development, the duties of which are:

a. to administer all the developmental operational activities;
b. to establish co-ordination, integration and synchronization with all the Sector Secretariatas as well as with the Departments/Agencies concerned.

Article 4

In executing the duties and responsibilities mentioned in clause (3) of Article 2 of this Presidential Decision, the State Minister for Operational Supervision of Development shall be assisted by the Secretariat for Operational Management of Development.

Article 5

The Secretariat for Operational Management of Development is led by a Secretary who is to be appointed by and responsible directly to the President.

Chapter III

The Sectors

Article 6

A Sector is led by a Sector Chief which function is held by a Minister/Leadership of a Non-departmental institution appointed by the President.

Article 7

The main duty of the Sector Chief is to co-ordinate, integrate and synchronize the activities of Operational Development of his Sector in order to achieve the targets that have been fixed.

Article 8

The Sector Chief, in executing his main duty, shall be directly responsible to the President.

Article 9

(1) Some Ministers/Leaders of the Government Institutions shall be appointed as members of each Sector, assisting the Sector Chief and being equally responsible for the smooth running of the Sector concerned.

(2) The Sector members of each Sector are given in the Annex I of this Presidential Decision.

Chapter IV

Sector Secretariat

Article 10

In executing his task and duty the Sector Chief shall be assisted by the Sector Secretariat led by a Sector Secretary who is fully and directly responsible to the Sector Chief.

Article 11

The Sector Secretary who has a full time, is appointed by the President on the advice of the Sector Chief.

Article 12

The Sector Secretary has the task to assist the Sector Chief in his task of executing operational development within his Sector and in implementing co-ordination, integration and synchronization together with the Secretariat for Operational Management of Development.

Chapter V

Financing

Article 13

The financing of the Secretariat for Operational Management of Development shall be borne by the Budget of the State Secretariat/Cabinet Secretariat.

Article 14

The financing of the Sector Secretariat shall be borne by the respective Departments/Agencies.

Chapter VI

Closing

Article 15

By laying down the Operational Management sectorally, the responsibility for the smooth implementation of the tasks of the Department Government Institution in their respective fields not included in the scope of the operational management under this Decision, is not diminished.

Article 16

The Composition of the Organization and the Procedure for Operational Management of Development are as attached in Annex II of this Presidential Decision.

Article 17

Matters not yet sufficiently provided for in this Presidential Decision shall be fixed afterwards.

Article 18

This Presidential Decision comes into force on the day of its enactment.

Enacted in: Djakarta
On : February 28, 1969

PRESIDENT OF THE REPUBLIC OF INDONESIA
(sgd.) Soeharto, General of the Army

DECISION OF THE PRESIDENT
OF THE REPUBLIC OF INDONESIA
No. 18 of the year 1969

Annex I

Sector	Chief of Sector
A. Agriculture	Minister of Agriculture
B. Industry	Minister of Industry
C. Mining	Minister of Mining
D. Production Infrastructure	Minister of Public Works & Electric Power
E. Communications Infrastructure	Minister of Communications
F. Financing	Minister of Finance
G. Foreign Trade	Minister of Trade
H. Basic Necessities	Minister of Trade
I. West Irian	Minister of Home Affairs
J. General Elections	Minister of Home Affairs
K. Village Development	Minister of Home Affairs
L. Tourism	Minister of Communications
M. Labor-intensive Projects	Minister of Manpower
N. Survey & Development	Chairman of BAPPENAS
O. Timber (Housing)	Minister of Public Works & Electric Power
P. Government Apparatus	Minister of State for State Administration Reform
Q. Security & Order	Commander/Deputy Commander of the Command for the Restoration of Security & Order

SECTOR: A. AGRICULTURE

I. Program: (A.1) Food; (A.2) Fisheries; (A.3) Animal Husbandry; (A.4) Plantations; (A.5) Forestry.

II. Chairman: Minister of Agriculture.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Public Works & Electric Power; (4) Department of Home Affairs; (5) Department of Trade; (6) Department of Industry; (7) Department of Foreign Affairs; (8) Department of Manpower; (9) Department of Transmigration & Co-operatives; (10) Department of Communications; (11) Department of Justice; (12) Department of Defence & Security; (13) Department of Information; (14) National Body for Logistics; (15) Indonesian Institute of Sciences; (16) National Command for Agricultural Surveys; (17) Central Bureau of Statistics; (18) Technical Committee for Foreign Investment; (19) BAPPENAS (National Development Planning Body).

IV. Main Task: To increase production of agriculture in the wide sense of the work to achieve self-sufficiency in food, including the improvement of people's nutrition, and intensification and extensification of agricultural exports for increasing foreign exchange earnings, everything for the interest of raising the standard of living of the people.

SECTOR: B. INDUSTRY

I. Program: (B.1) Clothing; (B.2) Transport Assembling; (B.3) Fertilizer; (B.4) Cement; (B.5) Chemistries; (B.6) Pharmacy; (B.7) Paper; (B.8) Light Industry and People's Handicraft; (B.9) Building Materials; (B.10) Jammed Industrial Projects.

II. Chairman: Minister of Industry.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Agriculture; (4) Department of Home Affairs; (5) Department of Trade; (6) Department of Public Works & Electric Power; (7) Department of Manpower; (8) Department of Communications; (9) Department of Justice; (10) Department of Health; (11) Department of Defence & Security; (12) Department of Information; (13) National Body for Logistics; (14) National Atomic Energy Commission; (15) National Tourist Institute; (16) Indonesian Institute of Sciences; (17) Central Bureau of Statistics; (18) Technical Committee for Foreign Investment; (19) BAPPENAS (National Development Planning Body).

IV. Main Task: Intensification and extensification of the national product, especially industry supporting the agricultural sector and to lay strong foundation for the development of national industry in general.

SECTOR: C. MINING

I. Program: (C.1) Oil and Natural Gas; (C.2) Tin; (C.3) Coal; (C.4) Bauxite; (C.5) General Mining.

II. Chairman: Minister of Mining.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Home Affairs; (4) Department of Trade; (5) Department of Industry; (6) Department of Public Works & Electric Power; (7) Department of Transmigration & Co-operatives; (8) Department of Manpower; (9) Department of Communications; (10) Department of Justice; (11) Department of Defence & Security; (12) Department of Information; (13) National Command for Agricultural Surveys; (14) Central Bureau of Statistics; (15) Technical Committee for Foreign Investment; (16) BAPPENAS (National Development Planning Body).

IV. Main Task: Intensification and extensification of production to fulfil domestic needs and particularly to raise exports.

SECTOR: D. PRODUCTION INFRASTRUCTURE

I. Program: (D.1) Roads and Bridges; (D.2) Rehabilitation of Land and Water; (D.3) Irrigation; (D.4) Rivers; (D.5) Electric Power.

II. Chairman: Minister of Public Works & Electric Power.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Agriculture; (4) Department of Home Affairs; (5) Department of Communications; (6) Department of Mining; (7) Department of Industry; (8) Department of Power; (9) Department of Transmigration & Co-operatives; (10) Department of Justice; (11) Department of Defence & Security; (12) Indonesian Institute of Sciences; (13) Department of Information; (14) National Command for Agricultural Surveys; (15) National Atomic Energy Commission; (16) Central Bureau of Statistics; (17) Technical Committee for Foreign Investment; (18) BAPPENAS (National Development Planning Body).

IV. Main Task: Intensification and extensification of the infrastructure of production for supporting agricultural, industrial and mining sectors.

SECTOR: E. COMMUNICATIONS INFRASTRUCTURE

I. Program: (E.1) Land Communications; (E.2) Railways; (E.3) Sea Communications; (E.4) Merchant Fleet; (E.5) River Transport; (E.6) Air Communications; (E.7) Air Merchant Fleet; (E.8) Post & Clearing; (E.9) Communications.

II. Chairman: Minister of Telecommunications.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank; (3) Department of Home Affairs; (4) Department of Foreign Affairs; (5) Department of Public Works & Electric Power; (6) Department of Agriculture; (7) Department of Industry; (8) Department of Mining; (9) Department of Trade; (10) Department of Manpower; (11) Department of Justice; (12) Department of Defence & Security; (13) Department of Information; (14) National Tourist Institute; (15) National Atomic Energy Commission; (16) Central Bureau of Statistics; (17) Technical Committee for Foreign Investment; (18) BAPPENAS (National Development Planning Body).

IV. Main Task: Intensification and extensification of infrastructure and transport facilities in order to smoothen the flow of goods and passengers for the improvement of economy and people's welfare.

SECTOR: F. FINANCING

I. Program: (F.1) Domestic Funds; (F.2) Foreign Funds.

II. Chairman: Minister of Finance.

III. Members: (1) Bank of Indonesia (Central Bank); (2) Department of Trade; (3) Department of Home Affairs; (4) Department of Foreign Affairs; (5) Department of Agriculture; (6) Department of Industry; (7) Department of Mining; (8) Department of Communications; (9) Department of Religious Affairs; (10) Department of Social Affairs; (11) Department of Education & Culture; (12) Department of Manpower; (13) Department of Justice; (14) Department of Defence & Security; (15) Department of Information; (16) Attorney General; (17) National Body for Logistics; (18) Technical Committee for Foreign Investment; (19) BAPPENAS (National Development Planning Body).

IV. Main Task: Mobilizing domestie and foreign financial sources for the need of state budget and to make the state financial development efficient and effective.

SECTOR: G. FOREIGN TRADE

I. Program: (G.1) Exports and Quality of Exports; (G.2) Expansion of Marketing; (G.3) Stabilizing of Prices; (G.4) Import Goods for Consumption; (G.5) Export Goods for Production.

II. Chairman: Minister of Trade.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Agriculture; (4) Department of Industry; (5) Department of Mining; (6) Department of Communications; (7) Department of Home Affairs; (8) Department of Foreign Affairs; (9) Department of Defence & Security; (10) Department of Information; (11) Attorney General; (12) National Body for Logistics; (13) Telecommunications Board; (14) Central Bureau of Statistics; (15) BAPPENAS (National Development Planning Body).

IV. Main Task: To stimulate intensification and extensification of export to increase the amount of foreign exchange earnings and to regulate import of essential consumptive goods, and raw and auxiliary materials for the increase of domestic production.

SECTOR: H. DAILY BASIC NECESSITIES

I. Program: (H.1) Purchasing and Distributing Nine Daily Basic Commodities; (H.2) Reception and Utilization of Food Aid.

II. Chairman: Minister of Trade.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Agriculture; (4) Department of Industry; (5) Department of Home Affairs; (6) Department of Foreign Affairs; (7) Department of Communications; (8) Department of Transmigration & Co-operatives; (9) Department of Manpower; (10) Department of Mining; (11) Department of Defence & Security; (12) Department of Information; (13) Attorney General; (14) National Body for Logistics; (15) Central Bureau of Statistics; (16) BAPPENAS (National Development Planning Body).

IV. Main Task: To purchase and distribute the nine basic commodities in sufficient amounts, at the right address and to execute special tasks.

SPECIAL SECTOR: I. WEST IRIAN

I. Program: (I.1) Act of Free Choice; (I.2) Regional Development.

II. Chairman: Minister of Home Affairs.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Foreign Affairs; (4) Department of Trade; (5) Department of Communications; (6) Department of Public Works & Electric Power; (7) Department of Agriculture; (8) Department of Industry; (9) Department of Mining; (10) Department of Education & Culture; (11) Department of Religious Affairs; (12) Department of Public Health; (13) Department of Social Affairs; (14) Department of Manpower; (15) Department of Justice; (16) Department of Defence & Security (17) Department of Information; (18) Attorney General; (19) National Body for Logistics; (20) BAPPENAS (National Development Planning Body).

IV. Main Task: To implement the New York Agreement, to maintain the West Irian region within the territory of the Republic of Indonesia and to implement developments in the region of West Irian, in line with the Five-Year Development Plan.

SPECIAL SECTOR: J. GENERAL ELECTION

I. Program: (J.1) Election Law and its Implementary Regulations; (J.2) General Election Physical Infrastructure.

II. Chairman: Minister of Home Affairs.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank; (3) Department of Justice; (4) Department of Communications; (5) Department of Defence & Security; (6) Department of Information; (7) Central Bureau of Statistics.

IV. Main Task: To hold general election in conformity with Provisional MPR Decree No. XLI/MPRS/1968.

SPECIAL SECTOR: K. RURAL DEVELOPMENT

I. Program: (K.1) Rural Community Mental Development; (K.2) Rural Physical Development.

II. Chairman: Minister of Home Affairs.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank; (3) Department of Agriculture; (4) Department of Industry; (5) Department of Social Affairs; (6) Department of Public Works & Electric Power; (7) Department of Manpower; (8) Department of Defence & Security; (9) Department of Transmigration & Co-operatives; (10) Department of Education & Culture; (11) Department of Religious Affairs; (12) Department of Information; (13) BAPPENAS (National Development Planning Body).

IV. Main Task: To carry out rural development as the gasis for the growth and expansion of regional potential values, especially agricultural potential values.

SPECIAL SECTOR: L. TOURISM

I. Program: (L.1) To Increase the Number of Tourists; (L.2) To Increase Facilities and Tourist Services.

II. Chairman: Minister of Communications.

III. Assistants to the Chairman: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Home Affairs; (4) Department of Foreign Affairs; (5) Department of Social Affairs; (6) Department of Trade; (7) Department of Education & Culture; (8) Department of Industry; (9) Department of Justice; (10) Department of Defence & Security; (11) Department of Information; (12) Attorney General; (13) National Tourist Institute; (14) BAPPENAS (National Development Planning Body).

IV. Main Task: To develop national tourism to increase foreign exchange earnings.

SPECIAL SECTOR: M. LABOR INTENSIVE PROJECTS

I. Program: (M.1) Project Preparations; (M.2) Mobilization of Manpower.

II. Chairman: Minister of Manpower.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Home Affairs; (4) Department of Social Affairs; (5) Department of Agriculture; (6) Department of Industry; (7) Department of Public Works & Electric Power; (8) Department of Transmigration & Co-operatives; (9) Department of Foreign Affairs; (10) Department of Defence & Security; (11) Department of Information; (12) National Body for Logistics; (13) Civil Service Bureau; (14) Central Bureau of Statistics; (15) BAPPENAS (National Development Planning Body).

IV. Main Task: To provide more productive and more full-time employment to workers based on gotong-royong in the interest of reconstruction.

SPECIAL SECTOR: N. RESEARCH AND DEVELOPMENT

I. Program: (N.1) Research and Surveys; (N.2) Forecasting the Next Phase.

II. Chairman: Chairman of the National Development Planning Body.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Home Affairs; (4) Department of Education & Culture; (5) Department of Agriculture; (6) Department of Industry; (7) Department of Mining; (8) Department of Manpower; (9) Department of Health; (10) Department of Foreign Affairs; (11) Department of Justice; (12) Department of Defence & Security; (13) Department of Information; (14) Indonesian Institute of Sciences; (15) Central Bureau of Statistics; (16) National Defence Council; (17) Institute of Public Administration; (18) National Survey and Cartographic Command; (19) Minister of State for the State Administration Reform; (20) National Atomic Energy Commission; (21) National Tourist Institute; (22) Telecommunications Board.

IV. Main Task: To carry out research and surveys in various fields for the growth and perfection of development planning.

SPECIAL SECTOR: O. TIMBER (HOUSING)

I. Program: (O.1) Skill; (O.2) Timber Production Means.

II. Chairman: Minister of Public Works & Electric Power.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Home Affairs; (4) Department of Industry; (5) Department of Agriculture; (6) Department of Communications; (7) Department of Manpower; (8) Department of Social Affairs; (9) Department of Health; (10) Department of Defence & Security; (11) Department of Information; (12) Indonesian Institute of Sciences.

IV. Main Task: To create an atmosphere and condition favorable for the stimulation of efforts in the field of reconstruction of city and village housing.

SECTOR: P. GOVERNMENT APPARATUS

I. Program: (P.1) Organization, Structure & Procedure; (P.2) Personnel.

II. Chairman: Minister of State for the State Administration Reform.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank; (3) Department of Trade; (4) Department of Home Affairs; (5) Department of Foreign Affairs; (6) Department of Manpower; (7) Department of Justice; (8) Department of Defence & Security; (9) Department of Information; (10) Attorney General; (11) National Defence Council; (12) Central Bureau of Statistics; (13) Indonesian Institute of Sciences; (14) Civil Service Bureau; (15) Institute of Public Administration; (16) BAPPENAS (National Development Planning Body).

IV. Main Task: Perfection of the Government apparatus in order to be able to implement the Five-Year Development.

SPECIAL SECTOR: Q. SECURITY AND ORDER

I. Program: (Q.1) Security; (Q.2) Civic Operations.

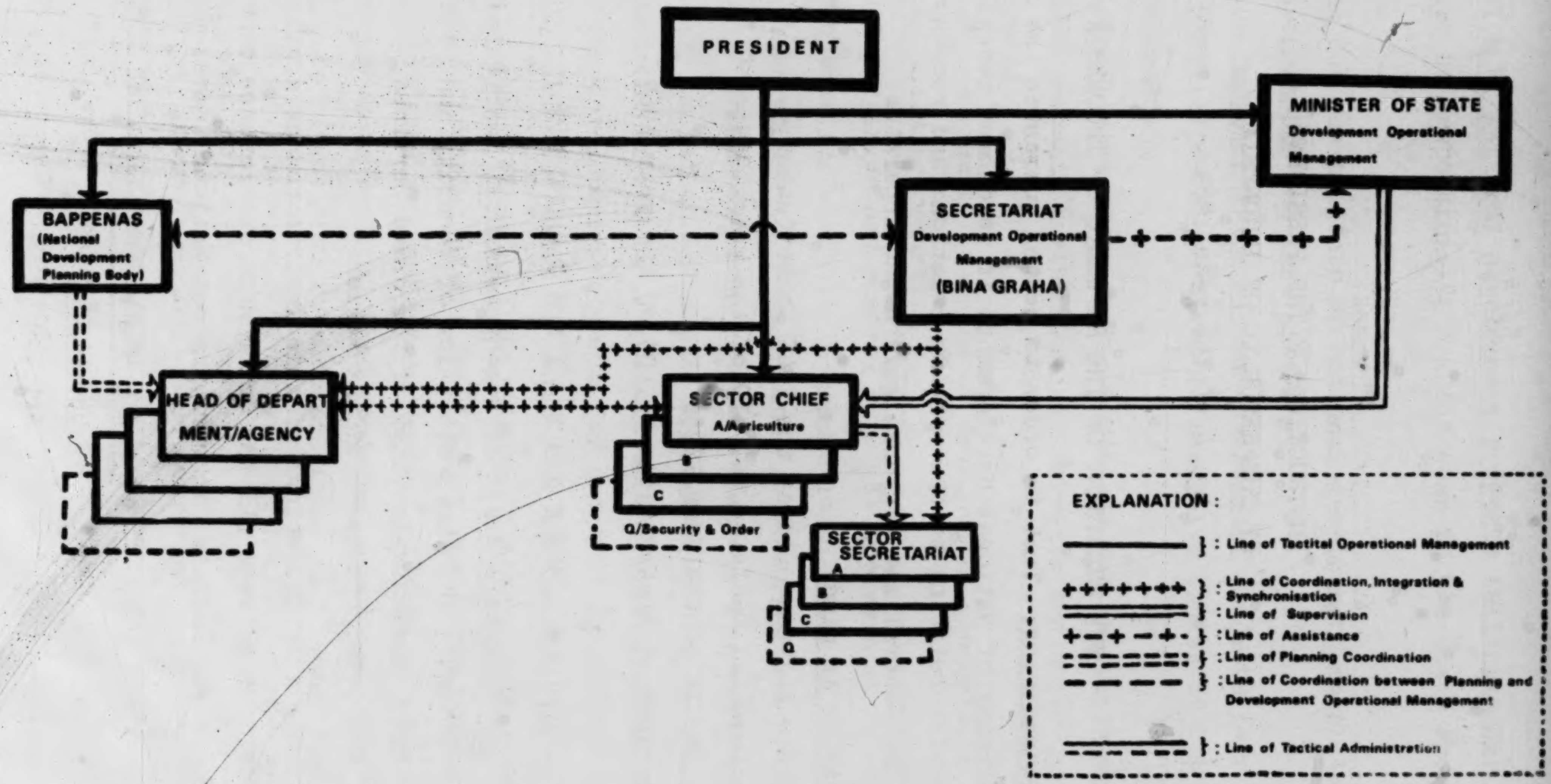
II. Chairman: Commander/Deputy Commander for the Restoration of Security and Order.

III. Members: (1) Department of Finance; (2) Bank of Indonesia (Central Bank); (3) Department of Justice; (4) Department of Home Affairs; (5) Department of Foreign Affairs; (6) Department of Communications; (7) Department of Agriculture; (8) Department of Industry; (9) Department of Mining; (10) Department of Public Works & Electric Power; (11) Department of Education & Culture; (12) Department of Religious Affairs; (13) Department of Social Affairs; (14) Department of Manpower; (15) Department of Transmigration & Cooperatives; (16) Department of Trade; (17) Department of Defence & Security; (18) Department of Information; (19) State Minister for the State Administration Reform; (20) All Commanders of the Army, Navy, Airforce and Police Force; (21) Intelligence Coordination Agency.

IV. Main Task: To guarantee internal and international security to guarantee the implementation of the Five-Year Development Plan, and to secure the Five-Point Orderliness.

DECISION OF THE PRESIDENT
OF THE REPUBLIC OF INDONESIA
No. 18 of the year 1969
Annek II

STRUCTURAL ORGANIZATION AND PROCEDURE OF THE DEVELOPMENT OPERATIONAL MANAGEMENT


PRESIDENT
MINISTER OF STATE
Development Operational Management
BAPPENAS
(National Development Planning Body)
SECRETARIAT
Development Operational Management
(BINA GRAHA)
HEAD OF DEPARTMENT/AGENCY
SECTOR CHIEF
A/Agriculture
B
C
Q/Security & Order
SECTOR SECRETARIAT
A
B
C
Q
EXPLANATION :
: Line of Tactital Operational Management
: Line of Coordination, Integration & Synchronisation
: Line of Supervision
: Line of Assistance
: Line of Planning Coordination
: Line of Coordination between Planning and Development Operational Management
: Line of Tactical Administration

INSTRUCTION OF THE PRESIDENT
OF THE REPUBLIC OF INDONESIA
No. 4 of the year 1969

THE PRESIDENT OF THE REPUBLIC OF INDONESIA,

Considering: That in order to better guarantee the success and safeguarding of National development, it is deemed necessary to issue a directive relating to the working relations and responsibilities between the Central and Regional government apparatus.

Having in mind:

1. Article 4 clause (1) of the 1945 Constitution;
2. Presidential Decision No. 319 of the year 1968;
3. Law No. 18 of the year 1965;
4. Presidential Instruction. No. 05 of the year 1967;

HEREBY INSTRUCTS:

1. All the Ministers/Heads of Non-departmental Institutes,
2. The Commander for the Restoration of Security and Order,
3. All the Commanders-in-Chief of the Armed Services,
4. All the Governors/Heads of the Regions,

To use all regulations of this Instruction as a guide for the working relations between all the Government apparatuses concerned, both at the Centre and Regions, in carrying out National development.

Chapter I
Department
Article 1

Each Department and Non-departmental Institute is responsible for the implementation of National development projects falling under their respective sphere of responsibility as laid down in the State Budget.

Article 2

In carrying out the projects of National development meant in Article 1, a Department has the task and duty:

(a) to manage the implementation of the development projects carried out by the Vertical Services or other executive bodies of the Department concerned;

(b) to give guidance, directions and instructions for the implementation of development projects to the Vertical Services and other executive bodies concerned;

(c) to look after the smooth financing of development projects in accordance with valid procedures;

(d) to exercise supervision and control over the implementation of development projects for which it is responsible;

(e) to conduct research and make evaluations about the progress of implementation of the development projects stage by stage and to take steps necessary to get the projects finished according to plan;

(f) to submit periodic or special reports to the President about the progress of the development projects for which it is responsible; a copy of the periodic report is also sent to the Chairman of the National Development Planning Body (BAPPENAS), the Minister of Finance and the Secretariat of the Development Operational Management;

(g) to study the advisory reports and suggestions of the project executive and the Governor/Regional Head concerned about the operational plan of projects of National development found in the regions and the realization of financing having been channeled to the executive of the development projects concerned;

(h) to report to the Governor/Regional Head concerned about the operational plan of National development projects found in the regions and the realization of financing having been channeled to the executive of the development projects concerned.

Chapter II

Vertical Service/Project Executive

Article 3

The National development projects in the regions are implemented by the Vertical Services, or special executive bodies appointed for this purpose by the Department/Non-departmental Agency concerned, which is responsible for the execution of its project.

Article 4

In implementing this project, the Vertical Service and executive body concerned is obliged:

(a) to pay attention to the directions, advices and instructions of the Government and its superior Department as concerns the implementation of the project for which it is responsible;

(b) to report to the Governor/Regional Head about the reception of funds and to pay attention to the advice of the Governor/Regional Head in the framework of facilitating the project implementation;

(c) to receive suggestions and considerations of the Governor/Regional Head to be passed on to the Department concerned for consideration;

(d) to establish coordination and close cooperation with Vertical Services or other executive bodies and interested regional offices;

(e) to report on the project implementation and progress periodically, or at a special request, to the superior Minister, the Minister of Finance, the Chairman of the National Development Planning Body (BAPPENAS) and to the Governor/Regional Head concerned and to submit considerations and suggestions for further improvement of the implementation;

(f) to submit financial reports according to valid procedures;

(g) if necessary, for the interest of smooth implementation of the development projects, assistance may be asked from the Governor/Regional Head concerned to surmount obstacles in carrying out its task.

Chapter III

Governor/Regional Head

Article 5

(1) The Governor/Regional Head has the task to be jointly responsible for and to supervise the smooth implementation of National development projects carried out in his region.

(2) In carrying out his task of joint responsibility and supervision the Governor carries out the following:

(a) to follow the progress of the development projects, their financing and the directives and technical advices given by the Department concerned to the Vertical Services/project executives;

(b) to request periodical or special reports from the development project executive about the progress of the project implementation;

(c) to report to the President, the Minister of Home Affairs and the Minister responsible for the project, should there arise special problems relating to the progress of implementation of the development projects in his region and to submit suggestions and considerations to improve the implementation in the future; a copy of this report is sent to the National Development Planning Body (BAPPENAS) and to the Secretariat of the Development Operational Management;

(d) in implementing his authority and responsibility meant in this Article, the Governor/Regional Head does not interfere with technical problems which are the direct responsibility of the Department concerned;

(e) to avoid policies, regulations and activities of the Regions which can interfere with the smooth implementation of the National projects in his region.

Article 6

(1) In carrying out his task and duty, the Governor/Regional Head makes use of the apparatus in his region in accordance with his authority and the valid regulations.

(2) If necessary, in order to surmount existing problems, the Governor/Regional Head can ask the assistance of the Regional Deliberative Leadership (MUSPIDA) to decide on a policy that should be adopted.

(3) To safeguard his policy in accordance with what has been decided upon by the MUSPIDA, the Governor/Regional Head can ask the Regional Authority Security Body (BPPD) or one of the elements of the Armed Forces to take physical security measures.

(4) As far as concerns problems of the September 30 Movement/PKI and other subversive problems, requests for assistance are directed to the Special Executive of the Commander for the Restoration of Security and Order.

Chapter IV

Regional Deliberative Leadership, Regional Authority Security Body and Special Executive of the Commander for the Restoration of Security and Order

Article 7

(1) The Regional Deliberative Leadership (MUSPIDA) holds deliberations to decide on a Regional Policy relating to:

a. the best way to carry out the Regional tasks in conformity with the policy of the Central Government, especially in implementing development;

b. efforts in helping to solve important problems faced by the Governor/Regional Head in carrying out his task, as an instrument of the Central Government and as an instrument of the Regional Government.

(2) MUSPIDA, as a Deliberative Body does not carry out any executive measures and does not issue regulations.

(3) Consensus acieved by the MUSPIDA is channeled through the Governor/Regional Head to the Central/Regional government apparatus concerned according to their respective field and competence, for implementation with the fullest sense of responsibility.

Article 8

The Territorial Commanders of the Armed Forces, both combined in the Regional Authority Security Body (BPPD), or separately according to their respective function and competence, assist the Governor/Regional Head in safeguarding the implementation of the Regional duties in accordance with the policy of the Central Government particularly in the field of development.

Article 9

The Special Executive of the Commander for the Restoration of Security and Order (PANGKOPKAMTIB) has the duty to prevent and to deal with underminings, disturbances and obstructions created by elements of the September 30 Movement/PKI and other subversions, so that the Governor/Regional Head and the other Government apparatus in his region can carry out their duties in accordance with the plan and policy of the Central Government in a proper way.

Chapter V

Closing

Article 10

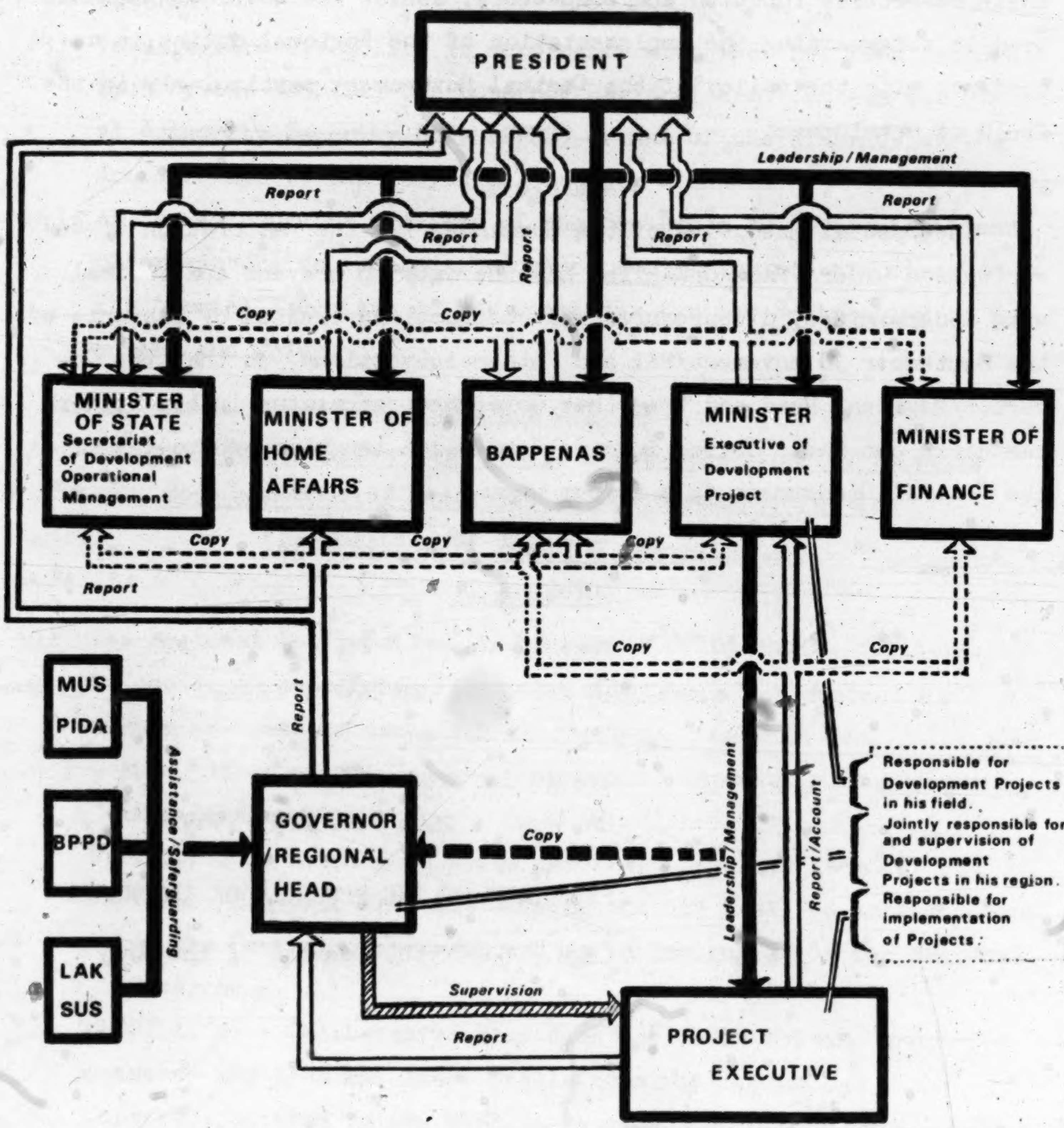
This instruction comes into force on the day of issue.

Issued in: Djakarta
On : 28th February, 1969.

PRESIDENT OF THE REPUBLIC OF INDONESIA

(sgd.) Soeharto, General of the Army

DIAGRAM
WORKING RELATIONS BETWEEN CENTRAL AND REGIONAL GOVERNMENT APPARATUS


PRESIDENT
Leadership / Management
Report
Report
Report
Report
Report
Copy
Copy
MINISTER OF STATE
Secretariat of Development Operational Management
MINISTER OF HOME AFFAIRS
BAPPENAS
MINISTER
Executive of Development Project
MINISTER OF FINANCE
Copy
Copy
Copy
Report
Copy
Copy
MUS PIDA
BPPD
LAK SUS
Assistance / Safeguarding
Report
GOVERNOR /REGIONAL HEAD
Copy
Leadership / Management
Report / Account
Responsible for Development Projects in his field.
Jointly responsible for and supervision of Development Projects in his region.
Responsible for implementation of Projects.
Supervision
Report
PROJECT EXECUTIVE

LAW No. 2 of the year 1969
on
The State Budget for the year 1969/1970

WITH THE BLESSING OF GOD ALMIGHTY
THE PRESIDENT OF THE REPUBLIC OF INDONESIA,

Considering:

1. that the State Budget for the year 1969/1970 needs to be determined by Law;
2. that the State Budget for 1969/1970 as the reflection of the implementation of the main duties of the Development Cabinet for the fiscal year 1969/1970, the first year of the Five-Year Development Plan, needs to be a performance budget;
3. that according to Decree No. XXIII/MPRS/1966, Article 25, of the Provisional MPR, the agricultural field has been determined the central point in the scale of priorities for development objectives for the period of the 1969/1970 State Budget;
4. that the State Budget for 1969/1970 is not only for the continuation of the results achieved in the previous year, but also constitutes a foundation for the implementation of development in the years to come;

In view of:

1. Article 5, clause (1) in conjuction with Article 23, clause (1) of the 1945 Constitution;
2. Decree No. XXIII/MPRS/1966 of the Provisional MPR;
3 Decree No. XLI/MPRS/1968 of the Provisional MPR;
4. Law No. 9 of 1968 on the Alteration of Article 7 of the Accountancy

Law (Indische Comptabiliteitswet, State Gazette of 1968, No. 53);

With the approval of the Gotong-Royong House of Representatives;

HAS RESOLVED:

To enact: THE LAW ON THE STATE BUDGET FOR 1969/1970.

Article 1

(1) The sources of State revenues for 1969/1970 are:
a. the Routine Budget and
b. the Development Budget.

(2) The Routine revenues meant in clause (1) sub a are estimated at a total of Rp. 228,000,000,000.

(3) The Development revenues meant in clause (1) sub b are estimated at Rp. 99,418,430,000.

(4) The total State revenues for 1969/1970 are thus estimated at Rp. 327,418,430,000.

(5) Details of the revenues meant in clause (2) and (3) above are successively contained in Appendices I and II of this Law.

Article 2

(1) The State expenditures for 1969/1970 consist of:
a. the Routine expenditures and
b. the Development expenditures.

(2) The Routine expenditures meant in clause (1) sub a are estimated at Rp. 204,044,000,000.

(3) The Development expenditures meant in clause (1) sub b are estimated at Rp. 123,374,430,000.

(4) The total State expenditures for 1969/1970 are thus estimated at Rp. 327,418,430,000.

(5) Details of the expenditure meant in clauses (2) and (3) above are successively given in Appendices III and IV of this Law.

Article 3

(1) A progress report is made every quarterly concerning:

a. the Routine revenues,
b. the Development revenues,
c. the Routine expenditures,
d. the Development expenditures.

(2) A progress report is made every quarterly concerning:
a. the Credit policy,
b. the development of foreign exchange traffic.

(3) The reports mentioned in clauses (1) and (2) should also contain a prognosis for the coming quarterly.

(4) The Audit Office scrutinizes the reports mentioned in clauses (1) and (2) of this Article and the results thereof are submitted to the Gotong-Royong House of Representatives.

(5) a. The reports mentioned in clauses (1) and (2) of this Article are studied by the Government together with the Budgetary Committee of the Gotong-Royong House of Representatives.
b. At the latest one month after the end of every quarterly, the Government and the Gotong-Royong House of Representatives, particularly the Budgetary Committee of the latter, shall study the progress in the realization and implementation of this Law.
c. The period for studying the implementation of this Law may be shortened if so desired by the Government and/or the Gotong-Royong House of Representatives.

(6) Adaptation of the budget to the developments/changes of the situation is analised by the Government together with the Gotong-Royong House of Representatives.

Article 4

At the end of the fiscal year 1969/1970 at the latest, the Government shall submit a Bill on Supplements to and Revisions of the State Budget for 1969/1970 based on the changes/additions resulting from the adaptation meant in Article 3, clause (6) which is to be ratified by the Gotong-Royong House of Representatives.

Article 5

(1) At the end of the fiscal year 1969/1970 an estimate is calculated on the realization of the budget.

(2) After scrutiny by the Audit Office the calculation meant in clause (1) is forwarded by the Government to the Gotong-Royong House of Representatives for consideration.

Article 6

Stipulations in the Accountancy Law (Indische Comptabiliteitswet) which are contradictory to the form and composition of this Law are declared invalid.

Article 7

This Law comes into force on the 1st of April 1969. In order that everyone may take cognizance of it, this Law shall be promulgated by publishing it in the State Gazette of the Republic of Indonesia.

Enacted in : Djakarta
On : 31st March, 1969.

PRESIDENT OF THE REPUBLIC OF INDONESIA
(sgd.) Soeharto, General of the Army.

CLARIFICATION about Law No. 2 of the year 1969 on the State Budget for the year 1969/1970.

General.

1. The State Budget for the year 1969/1970 as the form in which are reflected the chain of activities in implementing the five principal duties of the Development Cabinet is laid down by Decree No. XLI/MPRS/1968 of the Provisional MPR, constitutes the first fiscal year according to Law No. 9 of 1968 on Revision of Article 7 of the Accountancy

Law (Indische Comptabiliteitswet, State Gazette of 1968, No. 53).

The State Budget for 1969/1970 also forms an instrument to implement the first year of the Five-Year Development Plan. The development carried out during this first year is a continuation of the results achieved during the previous fiscal year and also forms the basis for the implementation of development in the years to come.

2. Based on the implementation of the five main duties of the Development Cabinet with the understanding that the agricultural field has been chosen as the central point of development, the State Budget for 1969/1970 has been drawn up on the following assumptions:

a. Efforts will be continued to have prices develop toward greater stability;

b. There are no changes of principle in the economic and financial policy for the 1969/1970 State Budget;

c. The production or harvest of products important to the State revenues such as cigarettes, tobacco etc. have met the fixed target;

d. There is no significant development in the international situation which could influence international economic relations of the Republic of Indonesia for the 1969/1970 period.

3. So as to arrive at the drawing up of a State Budget based on a performance budget, the State Budget for 1969/1970 has been drawn up as follows:

The system of separating the Routine Budget from the Development Budget as used in previous years has been maintained. The system of the Development Budget orientated on the Five-Year Development Plan, is drawn up as the first step toward performance budgeting through a more perfect planning, programming and budgeting.

The Development Budget is for this purpose divided into three fields: the economic, social and general fields. Each field is again divided into sectors, sub-sectors, programs and projects; this is also the case with the Development Budget, where all project aid is included in the Budget as continued credit.

This aid is in the form of projects and its inclusion in the Development Budget merely reflects its rupiah value. Implementation of a program can involve several Departments. Each Department in this case is responsible only for the pertinent part it has in the program.

It is thus hoped to get a more perfect co-ordination and synchronization in completing a program or a project, while a more effective use of the budget can be achieved.

4. The Routine expenditures for 1969/1970 have been drawn up in such a manner that they will also result in stepping up the ability to carry out development. The difference between the two types of budgeting involving the implementation of the development plan, in fact only lies in the nature of the type of expenditure and not in its essence.

Thus as a matter of fact the entire State Budget for 1969/1970 can not be separated from the implementation of the five principal duties of the Development Cabinet, particularly the Five-Year Development Plan of which the actual development planning can be found in the Development Budget.

The drawing up and implementation of the Routine Budget must therefore be directed also toward increased ability to reconstruct during the 1969/1970 budgetary year and the years to come. In line with the flexible nature of a budget and without abandoning the principle of responsibility of the Department concerned according to the Accountancy Law (Indische Comptabiliteitswet), budget items, articles and classification of part of the budget can be shifted around. The figures contained in the State expenditures act as ceiling for each of the expenditure concerned. The Departments concerned should use said budget on the basis of the policy already outlined and the needs that they can account for. Apart from that there are possibilities for additional expenditures in certain items, in an effort to get surplus revenues.

As for the Rp. 24 billion of Government savings, should the target be surpassed, the surplus should be used for routine items. Shifting of and/or additional expenditures should always be tried in the context of maintaining or even strengthening economic stability. It is for this purpose necessary to determine a priority list of activities that can increase the ability to reconstruct. The order of priorities is as follows:

a. Activities in the educational field to increase the possibility to form qualified cadres of skilled and partly skilled personnel. For this purpose increased expenditure for schools up to university/academy level will get first priority;

b. Activities in the field of law and order and the Government institutions. For this purpose increased expenditures for the Attorney General's Office and for the logistics of the regional administration will also have priority;

c. Activities in the field of health. Increased expenditures in this field form an effort to help reduce obstruction in the implementation of development;

d. Other activities which clearly turn out to be "bottlenecks" hampering the development should also be given the opportunity to have increased expenditures.

Furthermore, the Development Budget also gets the opportunity to shift expenditures from one sector/sub-sector/program/project to another as long as efforts are made to maintain coordination, integration, synchronization and simplification; besides, there is the possibility of expenditure increase of a project in line with the order or priority. Considering the financial ability, the required pre-condition should first be created such as an operational pre-condition which includes funds to maintain government equipment apart from the purchase of goods, and also a pre-condition in the field of adminstration as an important element for a quick and smooth handling of expenditures, for settling of accounts and so on -- all these should be always improved whenever possible.

It is therefore also necessary to scrutinize the expenditures of development projects which, seen from the budgetary angle, do not fall under the State Budget as they can be realized through a banking credit, for instance such projects as government estates/State enterprises (self-liquidating projects).

Article by Article Clarification.

Article 1: Sufficiently clear.

Article 2: Sufficiently clear.

Article 3: Clauses (1), (2) and (3): Sufficiently clear.

Clause (4): The stipulation that the Audit Office controls every quarterly report, the result of which is to be submitted to the Gotong-Royong House of Representatives, is meant to give the latter, particularly its Budgetary Committee, material when a debate is held by the Budgetary Committee concerning the quarterly report.

Clause (5): The debate is meant to come to principles in determining the Bill for the State Budget for the following year in line with Article 5, clause (1) in conjunction with Article 23, clause (1) of the 1945 Constitution.

Clause (6): Sufficiently clear.

Article 4: Sufficiently clear.

Article 5: The procedure of debates on calculation of the budget according to Article 5, clause (1) of this Law, before a new Law is established, is carried out according to the stipulations in the Accountancy Law (Indische Comptabiliteitswet).

Article 6: Sufficiently clear.

Article 7: Sufficiently clear.

THE STATE BUDGET FOR 1969/1970

(in thousands of rupiah)

	Revenues	Expenditures
I. ROUTINE BUDGET		
1. Provisional People's Consultative Assembly	----	170,607
2. Gotong-Royong House of Representatives	----	381,150
3. Supreme Advisory Council	----	36,266.4
4. State Comptrolling Body	----	129,158.8
5. Supreme Court	260	29,510.4
6. Attorney General's Office	350,010	894,306.8
7. Presidency	----	192,479.6
8. Cabinet, Secretariat of State and Other Agencies	160	560,666 a)
9. Non-departmental Bodies/Agencies	676	605,314.8 b)
10. Department of Home Affairs	200,850	1,833,979.2
11. Department of Foreign Affairs	1,920	5,713,425.6
12. Department of Defence & Security	----	82,310,000 c)
13. Department of Justice	35,095.6	2,457,427.6
14. Department of Information	7,500	1,598,272
15. Department of Finance	227,111,094.6 d)	3,181,933.6
Financing & Accounting Division	Memory	74,596,813.2 e)
16. Department of Trade	25,000	493,274.8
17. Department of Agriculture	20,660	930,565.2
18. Department of Industry	450	433,900.4

19. Department of Mining	15,500	186,939.6
20. Department of Public Works & Electric Power	15,000	1,046,800
21. Department of Communications	34,992.8	1,465,056
22. Department of Education & Culture	3,740	12,672,957.2
23. Department of Health	100,000	4,134,596
24. Department of Religious Affairs	49,551	6,162,135.2
25. Department of Manpower	16,000	452,250.8
26. Department of Social Affairs	10,000	610,228.4
27. Department of Transmigration & Co-operatives	1,000	763,985.2
Total Routine Budget	227,999,460	204,043,994.4
Rounded Off	228,000,000	204,044,000
Total Development Budget	99,418,430	123,374,430
TOTAL STATE BUDGET	327,418,430	327,418,430

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a) I.e. for the following agencies:

1. Cabinet	98,019.98
2. Secretariat of State	212,964.78
3. Code Office	30,755.9
4. Civil Service Bureau	44,626.684
5. Institute for Public Administration	37,031.7
6. National Council for Aviation and Outer Space	7,336.912
7. Telecommunications Council	2,384.224
8. Institute for Aviation and Outer Space	10,520.288
9. Intelligence Coordination Agency	86,957.696
10. General Expenditures	30,067.836
TOTAL	560,666

b) I.e. for the following institutes:

1. Indonesian Institute of Sciences	139,363.4
2. National Atomic Energy Commission	53,895.8
3. Central Bureau of Statistics	266,132.8
4. National Development Planning Board/ Blueprint Hall	80,361.2
5. National Archives	12,635.7
6. National Institute for Tourism	52,925.9
TOTAL	105,314.8

c) Breakdown:

1. Salaries and Wages	51,395,600
2. Personal Securities	12,095,000
3. Material Provision	12,735,650
4. Education and Training	1,025,000
5. Other Military Activities	4,808,750
6. Development of Military Enterprises	150,000
7. Expenditures of Closed Fiscal Years	100,000
TOTAL	82,310,000

d) Breakdown:

1. Secretariat General		111,094.6
2. Taxes		116,200,000
a. Income Tax	15,500,000	
b. Corporate Tax	63,700,000	
c. Assessed Tax	11,500,000	
d. Property Tax	300,000	
e. Foreign Exchange Tax	50,000	
f. Other Direct Taxes	150,000	
g. Sales Tax	22,000,000	
h. Stamp Duty	2,700,000	
i. Auction Duty	100,000	

j. Other Direct Taxes	200,000	
3. Customs and Duties on		88,200,000
a. Imports	60,000,000	
b. Tobacco	25,500,000	
c. Sugar	2,400,000	
d. Beer	180,000	
e. Distilled Alcohol	120,000	
f. Petroleum	Memory	
g. Other Revenues	Memory	
4. Directorate General of Finance		22,600,000
a. Foreign Exchange Export Tax	7,000,000	
b. Oil Profit	14,100,000	
c. Others	1,500,000	
	TOTAL	227,111,094.6

e) Breakdown:

1. State Debts		16,500,000
2. Pensions		9,301,672.4
3. General Expenditures		44,450,140.8
4. Expenditures for Closed Fiscal Years		1,845,000
5. Unexpected Expenditures		2,500,000
	TOTAL	74,596,813.2

SPECIFICATION OF THE DEVELOPMENT BUDGET

(in thousands of rupiah)

		Development Budget	Project Aid & Technical Aid
I. ECONOMIC FIELD	(total)	60,200,800	34,234,000
A. SECTOR OF AGRICULTURE & IRRIGATION	(total)	26,133,500	9,000,000
1. Sub-sector of Agriculture	(total)	5,228,500	4,000,000
1.1 Increasing of Food Production		2,198,000	
1.2 Increasing of Estates Production		1,798,000	
1.3 Increasing of Fisheries Production		386,000	
1.4 Increasing of Forestry Production and Development of Forestry		601,500	
1.5 Increasing of the Production of Animal Husbandry		245,000	
2. Sub-sector of Irrigation	(total)	20,905,000	5,000,000
2.1 Preservation of Soil and Water		400,000	
2.2 Improvement of Irrigation		6,350,000	
2.3 Expansion of Irrigation		6,425,000	
2.4 Improvement and Floodcontrol of Rivers		1,400,000	
2.5 Other Development of Irrigation		6,330,000	
B. SECTOR OF INDUSTRY & MINING	(total)	8,395,000	9,900,500
1. Sub-sector of Industry	(total)	6,950,000	8,900,500
1.1 Improvement and Expansion of the Fertilizer, Cement and Chemical Industries		1,010,000	
1.2 Improvement of the Textile Industry		1,250,000	

1.3 Expansion of the Paper Industry		570,000	
1.4 Expansion of the Pharmaceutical Industry		-----	
1.5 Development of Light Industry and People's Handicrafts		1,520,000	
1.6 Development of the Industry for Metal, Machineries, Equipment and Developmental Infrastructure		1,900,000	
1.7 Utilization of Delayed Projects		700,000	
2. Sub-sector of Mining	(total)	1,445,000	1,000,000
2.1 Survey of Oil & Natural Gas		100,000	
2.2 Improvement of Tin Mining		-----	
2.3 Improvement of Coal Mining		700,000	
2.4 Increase of Geological Activities		382,000	
2.5 Improvement of Facilities for Development		263,000	
C. SECTOR OF ELECTRIC POWER	(total)	4,690,000	6,195,000
1. Sub-sector of Electric Power	(total)	4,690,000	6,195,000
1.1 Increase of Electric Power		4,690,000	
D. SECTOR OF COMMUNICATIONS AND TOURISM	(total)	17,982,300	9,138,500
1. Sub-sector of Communications	(total)	17,982,300	
1.1 Rehabilitation of Communications Infrastructure (Roads & Bridges)		7,000,000	
1.2 Increase of Road Transportation and Road Facilities		90,000	
1.3 Rehabilitation and Increase of Rail Transportation		2,978,300	
1.4 Rehabilitation of Sea Communications Infrastructure		3,688,000	
1.5 Rehabilitation of the Commercial Fleet		-----	
1.6 Development of River Transportation		110,000	

1.7 Rehabilitation of Air Communications		1,560,000	
1.8 Increase of Postal and Clearing Services		110,000	
1.9 Rehabilitation and Increase of Telecommunication Service		2,396,000	
2. Sub-sector of Tourism	(total)	50,000	
2.1 Development of Tourism		50,000	
E. VILLAGE SECTOR	(total)	3,000,000	
1. Village Sub-sector	(total)	3,000,000	
1.1 Village Development		3,000,000	
II. SOCIAL FIELD	(total)	17,604,150	2,000,000
A. SECTOR OF RELIGION	(total)	606,000	
1. Sub-sector of Religion	(total)	606,000	
1.1 Provision of Facilities for Religious Life		200,000	
1.2 Religious Information and Guidance		49,000	
1.3 Improvement of Pilgrimage Welfare		24,000	
1.4 Control and Support to Private Religious Institutes		13,000	
1.5 Construction of Istiqlal Mosque		320,000	
B. SECTOR OF EDUCATION & CULTURE	(total)	9,937,680	600,000
1. Sub-sector of Education	(total)	5,213,000	600,000
1.1 Improvement of Primary Education		360,000	
1.2 Increasing Vocational Training at Secondary Schools		300,000	
1.3 Increasing Technical and Vocational Education		2,454,000	
1.4 Increasing Education for Teachers		239,000	
1.5 Development of Higher Education		1,700,000	
1.6 Increasing Mass & Adult Education		160,000	

2. Sub-sector of Culture	(total)	370,000	
2.1 Development of the National Culture		279,000	
2.2 Increasing Sport Activities		91,000	
3. Sub-sector of Education and Institutional Research	(total)	4,354,680	
3.1 Institutional Education/Training		3,199,811	
3.2 Upgrading of Research/Survey		1,154,869	
C. SECTOR OF MANPOWER	(total)	231,000	
1. Sub-sector of Manpower	(total)	231,000	
1.1 Provision and Utilization of Manpower		210,000	
1.2 Development of Expertise & Skill		17,000	
1.3 Development of Job Security Norms		4,000	
D. SECTOR OF HEALTH AND FAMILY PLANNING	(total)	3,659,000	950,000
1. Sub-sector of Health	(total)	3,539,000	600,000
1.1 Community Health Training		42,000	
1.2 Development of Health Infrastructure		1,655,000	
1.3 Eradication of Contagious Diseases		836,000	
1.4 Rehabilitation and Upgrading of Health Services		106,000	
1.5 Provision of Medicines and Medical Equipments		900,000	
2. Sub-sector of Family Planning	(total)	120,000	350,000
2.1 Development of Family Planning Services		120,000	
E. SECTOR OF HOUSING, SOCIAL WELFARE AND PROVISION OF DRINKING WATER	(total)	1,520,950	
1. Sub-sector of People's Housing, City and Regional Planning	(total)	250,000	

1.1 Guidance for the Construction of City and Village Houses		180,000	
1.2 City and Regional Planning		70,000	
2. Sub-sector of Social Welfare	(total)	204,950	
2.1 Development of Social Changes		25,079	
2.2 Social Assistance		179,871	
3. Sub-sector of Drinking Water and Sanitation	(total)	1,066,000	
3.1 Increase of Drinking Water Supply		1,016,000	
3.2 Upgrading of Sanitation		50,000	
F. SECTOR OF INFORMATION	(total)	589,520	250,000
1. Sub-sector of Information	(total)	589,520	250,000
1.1 Upgrading of Mass Information		81,075	
1.2 Development of Mass Media		508,445	
G. SECTOR OF JUSTICE	(total)	1,060,000	
1. Sub-sector of Justice	(total)	1,060,000	
1.1 Development of the Administration of Law		645,000	
1.2 Prisoners' Education/Resettlement		415,000	
III. GENERAL FIELD	(total)	9,335,480	
A. SECTOR OF GENERAL ADMINISTRATION	(total)	3,328,580	
1. Sub-sector of General Administration	(total)	3,328,580	
1.1 Perfection of the Efficiency of Government Apparatus		432,500	
1.2 Perfection of the Physical Infrastructure of Administration		2,896,080	
B. SECTOR OF DEFENCE & SECURITY	(total)	4,000,000	
1. Sub-sector of Defence & Security	(total)	4,000,000	

1.1 Development of Manpower		1,000,000
1.2 Development of Combat Potency		750,000
1.3 Expansion of Armed Forces' Industries		1,000,000
1.4 Expansion of Development Potency		1,250,000
C. SECTOR OF REPRESENTATIVE BODIES	(total)	699,000
1. Sub-sector of Representative Bodies	(total)	699,000
1.1 Increase of Legislative Products		699,000
D. SECTOR OF STATE FINANCE MANAGEMENT	(total)	1,307,900
1. Sub-sector of State Finance Management	(total)	1,307,900
1.1 Increase of State Revenues		918,000
1.2 Increase of Efficiency in State Expenditures		235,000
1.3 Improvement of State Finance Administration		50,000
1.4 Improvement of State Finance Control		104,900

PRESIDENTIAL MESSAGE

on the eve of the start of

REPELITA

The Five-Year Development Plan *)

Honorable Leadership of the Madjelis,

Leadership of the Gotong-Royong House of Representatives,

Leadership of the Supreme Advisory Council,

Chairman of the Supreme Court,

Chairman of the State Comptrolling Body,

Ladies and Gentlemen,

Just now -- all praise be to God Almighty -- I have signed the Law on the State Budget for 1969/1970.

More than just a creation of a Law, this moment is of very great significance for the future of our Nation as we are at the point of entering the first year of the implementation of REPELITA, the Five-Year Development Plan. With the enactment of this Law we now have a clear and specified working plan for the 1969/1970 period in the framework of implementing the first Five-Year Plan 1969 - 1973.

I am extending the highest appreciation and greatest thanks to the Gotong-Royong House of Representatives which has shown understanding, and cooperation and worked together with the Government with such speed

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*) Delivered at the signing ceremony of the Law on State Budget for 1969/1970, at Istana Merdeka, Djakarta, 31st March, 1969.

that this so important law could be completed right on time.

I am also extending my appreciation for the statement on the basic standpoint, the comments and constructive proposals about the Five-Year Plan forwarded by the Gotong- Royong House; the contents of those statement, comments and proposals are very encouraging and are a very significant contribution of thought to which the Government will pay due attention.

With the completion of this Law on the State Budget and now that the House has finished its study of the Five-Year Plan prepared by the Government, resulting in those positive constructive comments and proposals, it is clear to us all that at most important moments and in the face of problems deciding the future of the entire Nation, we, together, can always come to a consensus of policy through "musjawarah" or positive deliberations. In implementing the Development Plan we should jointly strengthen this spirit and imbue the people with the same spirit.

The attitude and the result of work of the House are really in accord with and meet the demands of the people because the Five-Year Development Plan prepared and decided upon by the Government is, in fact, nothing else but just a more detailed implementation of the people's decision made through their representatives at the past Fourth, Special and Fifth General Sessions of MPRS. The determining of both the order of priority in development work and the division into development fields and sectors have been wholly based on the existing MPRS Decrees.

With the enactment of the Law on the State Budget after being jointly decided upon by the House of Representatives and the Government -- which means that it has been approved by all representatives of the people and by all layers of the society -- the first year for the implementation of the Five-Year Plan not only has obtained a strong constitutional basis but it also shows that all of us without exception have been called upon and made responsible for the success of the struggle of the New Order by carrying out this stage by stage planned development. Now, all of us -- all political parties, all mass organizations, all "karya" (functional) organizations, yes, the entire nation -- have a common national program and being fully aware of our responsibility we will carry out the task of building up our Nation.

At such moments, decisive for the future of our Nation, I want to talk directly to the entire Indonesian people.

Fellow Countrymen,

Tomorrow, the first of April, we start carrying out a great national undertaking, to wit the first year of the Five-Year Development Plan. This means that our Nation's journey has reached a new historic milestone: a further progress in the present phase of the struggle of the New Order, i.e. the implementation of development.

The aim of our long-term struggle has never changed, that is the creation of a materially and spiritually just and prosperous society, in which there is political and economic democracy based on Pantja Sila for the entire people. The way to reach that aim is also clear, i.e. through "musjawarah" or deliberations to come to a consensus of opinion and to work hard and in a gotong-royong fashion to reach the aim jointly decided upon, in an orderly manner and full of enthousiasm. Based on stipulations in the Constitution, we will realize the manner above by implementing a constitutional system, stimulating a sound democratic way of life and upholding the Law.

The society we are striving for is one with material welfare and spiritual peace of mind in which every man and woman can work with joy and enjoy the fruit of his/her labor, in which every family can live happily, free from fear and pressures, in which children can go to school and the youth can develop their talents, in which culture can grow and science progress, every man can worship according to his own religion and conviction, and in which every citizen is aware of his rights and his responsibilities, and all live together in peace and in the gotong-royong fashion, equally high and equally low in status.

Those then are our ideals for the future; and to achieve them we are obliged to work hard and regularly in the present time.

To this end we have to build up; build up our household, build up our hamlets and villages, build up our regions. We will have to build up this Country and Nation, from Sabang to Merauke.

To do this we must have a good working plan and work better.

Now we have the Five-Year Development Plan as a first step and important element for the realisation of those ideals, which we must carry out as best as possible, after which we will have to continue with another Development Plan and implement it for the next stages.

Fellow Countrymen,

It is on the successful implementation of this Five-Year Development Plan that we must concentrate all our attention and activities.

The aims of this, our first, Five-Year Development Plan, are indeed simple; they are only aimed at meeting pressing needs of the people at present: food, clothing, increase of houses, more employment opportunity, the infrastructure, spiritual welfare and the practice of religious worship according to one's own creed.

We have purposedly drawn up a simple plan, because we should assume a realistic attitude in our steps to the lofty ideals of our Nation, which should be in accordance with our real capacity at the present time. With the achievement of the aims of the first Five-Year Development Plan, a basis will simultaneously be obtained to implement the next development stage which as a matter of course will be more extensive and advanced.

With such a simple plan we will, at the completion of the Plan, not have heavy industries yet, nor skyscrapers in the big cities, let alone in the villages, nor will we be able to build such things like space ships; but one thing will be certain: food production, especially rice, and the textile production will increase year by year so that we will no longer need import; the capacity and facilities of land, sea and air communications will have been stepped up; our export products such as forest products, estate and mining products, particularly oil, will have increased thus increasing our abilities to start bigger undertakings.

Similarly, we will also be more able and more quietly develop culture and religion in accordance with our respective talents and convictions, and so on.

Nevertheless, although our plan looks so simple, its implementation to achieve its objectives, clearly is not a simple matter. For a successful implementation of this Plan, activities, steps and the exertion of energy and thought are urgently required and maybe even sacrifices.

We all have to work hard and sincerely, and not only simultaneously and together, but all this must be accompanied by a gotong-royong mentality, honesty and firm determination to make the Plan successful; in short each movement and step of ours should really be program-oriented.

Fellow Countrymen,

We are now having a Five-Year Development Plan as a guidance for further steps in the five years to come. We also have an operational program for the first year, which is reflected in the Law on the State Budget for 1969/1970 which shows a detailed picture of the sectors, programs and even the physical projects including the funds made available to carry out each project.

In the meantime, the Government has according to its abilities made various efforts for further preparations to carry out the first year of this Development Plan.

Efforts to firmly secure political and economic stability are being continued. During the first months of this year 1969 -- ordinarily called "scarcity months" -- when in the past years disturbing price fluctuations always occurred, fluctuations were absent; on the contrary, a more convincing stability was visible these last weeks, thus forming an economic condition very favorable for the implementation of development.

Similarly, the political stability and the spirit of solidarity and unity based on Pantja Sila could be maintained, thanks to the understanding and alertness of the entire people and the quick measures taken by the competent State apparatus.

Further, steps toward mental preparedness and technical provision of the implementing apparatus have also been taken. The President himself will continuously managed and follow the implementation of the development projects already determined; operational control also will be intensified and the President will be assisted by the Minister of State for Development Operational Supervision.

The working-method and working-relations between the Government apparatuses have been fore firmly defined at both the Central and Regional level so that confusion can be decreased. A more careful specification of each project determined by the Law on the State Budget 1969/1970 has also been made so that at this moment it is definitely known where the location is, the amount and kinds of funds needed, who is the responsible person, the estimate of three-monthly progress, and the time of completion of each project according to the Department/Agency concerned.

In the financial field the procedure of channeling the available funds and the account thereof have been stipulated in such a way that it can be carried out smoother and right on time and properly accounted for. Speaking about this financing I should like to announce that based on a proper estimate and calculations, the Government will be able to put available about Rp. 21 billion to finance development during the first quarterly; this is 25 per cent of the total rupiah-financing for development decided upon for the year 1969/1970. Compared to the 1968 development budget this is 60 per cent of the development budget for that year. This amount will be a capital sufficiently large to get the wheels of development moving and will keep them moving smoothly as long as we can utilise it correctly according to the existing program.

Fellow Countrymen,

The responsibility for the implementation of the development work does indeed not only lie with the Government and it is indeed impossible for the Government to control all economic sectors itself nor will it carry out all development sectors by itself. The Government only takes care of development work in strategic and vital sectors, particularly those that cannot yet be undertaken by or are less attractive to private business.

The Government will continue to make every effort to stimulate and encourage private economic forces.

The greater part of the population has been waiting for the implementation of this development plan. the Government is fully aware of this very great desire and is also ready to implement it. As I have said before, the Government can be expected to be ready and prepared to stimulate the people to participate consciously in implementing development and make it a success.

We have now made preparations and we have sufficient requirements to carry out development. I expect that from tomorrow morning, 1st April 1969, activities will start, in offices in the cities as well as in the field in the villages, by both the Government apparatus and by private business and the people in general, which are directly connected with the implementation of this Five-Year Development Plan, each in his own field and according to his abilities.

I should on this occasion reveal that at present the Government has put available at people's banks in the Regions -- for the time being this has been limited to the island of Java only -- funds to the amount of Rp. 100,000 for each village to help revive the spirit of gotong-royong and stimulate the people's initiative in the villages.

It is hoped that under the leadership of the head of the local administration and assisted by the local social leaders, the village people will use this financial aid to develop their respective village.

Fellow Countrymen,

We have made preparations for implementing this Five-Year Development Plan, but of no less importance than those preparations and the implementation of the Plan, is safeguarding it.

Safeguarding it means that on the one hand we have to carry out all plans to the best of our abilities, and on the other hand we should prevent any possibility that hamper implementation of that Development Plan whether this comes from without or from within.

The most important condition for this safeguarding is our national endurance in all fields so that we are able to overcome any form of disturbance and not easily wavered by negative influences. That is why we have to maintain national stability in all fields; in politics, economics, social and in the field of defence and security.

We will be able to maintain a dynamic national stability by continuously stepping up the "Pantja Tertib" (Five Point Orderliness).

To create this national stability we should first increase our high alertness toward the subversive activities of remnants of the PKI.

I should remind the public of this PKI danger. Some of us seem to have become careless as they consider the PKI danger as completely wiped out. We have indeed crushed the main force of the PKI; therefore, they have changed tactics and are now using other methods.

We should always remember that after we had crushed the PKI rebellion in Madiun, they launched a second rebellion 17 years afterwards with their 30th-September-Movement in 1965.

It is clear that the remnants of the PKI do not sit idle now. They attempt to build up armed strength and will always try to incite us against each other. They secretly try to penetrate into our circles by such movements as the one they call "working within enemy circles".

We should be vully aware of this danger; there are for instance the PGRS movement in West Kalimantan, the concentration of armed strength in South Blitar, the Djatibarang affair, the commotion about the Purwodadi question, the discovery of underground rooms in several areas of East and Center Java, and so on.

Those happenings have stirred up anxiety amongst the public, have caused us to accuse each other, and have wasted our thought and energy. It is such commotion and ruptures that the PKI is aiming at! They want to divert our attention which at present is concentrated on the implementation of development to matters of less importance. They want to incite us against each other and weaken our potentials and our position.

Because, if the New Order succeeds in its struggle, if the development works out successfully, if the people are prosperous, then the PKI would no longer have a place for their propaganda.

Nevertheless, we need not worry and need not suspect each other. The security forces of the State have gained enough experience and have always succeeded in crushing their subversive actions wherever they arose.

The public is requested to maintain mental and physical resistance by strengthening their awareness and alertness of the danger of the PKI which still exists so that they will not easily be influenced or involved themselves in activities that have been planned by and are to the advantage of the PKI.

The strongest fortress for facing this danger is solidarity and unity amongst all of us who love this Unitary State of the Republic of Indonesia based on Pantja Sila.

We may indeed have different opinions; moreover, differences of opinion is one of the characteristics of a living democracy and necessary to find the truth, to obtain "mufakat" — consensus of opinion -- after considering the matter from all angles. However, while differing in opinion we have to put national unity and the national interest in the foremost place, above any private or group interest.

Our most absolute national interest at present is the integrity of the Unitary State of the Republic of Indonesia from Sabang to Merauke, implementation of Pantja Sila and the 1945 Constitution, a successful Five-Year Development and destruction of the remnants of the PKI!

At this moment we also absolutely need that spirit of unity and solidarity, alertness and preparedness, to secure the "act of free choice" in West Irian which we are going to carry out and accomplish within this very year so that its implementation will not disturb our nation building, particularly in West Irian.

Ladies and Gentlemen,

Building our Nation has to be supported by the will to unite; by concrete deeds to strengthen unity; by the will to achieve common aims and to work hard.

Let us create a new atmosphere which will further strengthen our unity by making smoother communication and dialogue amongst ourselves. Let us be more open-minded and straightforward to each other and avoid ugly prejudices.

We have to foster and continue to promote our awareness as a national unity by refraining from sharpening the differences of groups, ethnic groups, political party affiliation, or religious convictions.

With the spirit of unity and with the determination to work hard, the Five-Year Development Plan is sure to succeed.

The future, our happiness, depend completely upon ourselves. Every citizen — man and woman, farmer, laborer, civil servant, soldier, intellectual, small as well as big businessman, student, spiritual leader, member of party and mass organization — carries the same amount of responsibility and should contribute to the best of his ability in his respective field.

We are taking a tremendous responsibility upon our shoulders; not only for the improvement of our destiny, not only for the present but also for the future and also for our children and grandchildren.

Indeed, we will not reap the fruit of our present labor within the near future. Today we have to work and only afterwards will we enjoy the results.

We are definitely determined to build up and we enter this first year of the Five-Year Development Plan fully confident in our own abilities.

Let us together build up the future of our State based on Pantja Sila. With the start of the implementation of this Development Plan, the struggle of the New Order enters a new phase, i.e. the Development Order. While working harder and better, by increasing our sense of responsibility, by creating a stronger unity, we pray to God the Almighty that He will lead us and give us strength.

In the name of our all Loving God, I, Mandatary of MPRS, I am prepared to lead and safeguard the implementation of this Five-Year Development Plan.

Thank you.